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中國醫藥大學附設醫院眼科部

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中國醫藥大學附設醫院眼科部

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呂大文[1]，張志揚[2]，江樵熹[2]
國防醫學院三軍總醫院眼科部[1]，國防醫學院藥學系[2]

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譚超毅*，張國彬，楊博閔，蔡忠斌
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嘉義基督教醫院 眼科

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何宜豪，蔡宜佑，江鈞綺
中國醫藥大學附設醫院眼科部

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賴俊杰
國立成功大學附設醫院 眼科部

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江尚宜[1]，林世民[1,2]，洪啟庭[2]，呂大文[1]
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彰化基督教醫院眼科，員生醫院眼科，中山醫學大學醫學研究所

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埔里基督教醫院

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沈奕勳
新光吳火獅紀念醫院 眼科

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張義昇
國立成功大學附設醫院 眼科部

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黃正賢，謝昀翰
國立臺灣大學附屬醫院 眼科部

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亞東紀念醫院眼科，國立陽明大學醫學系

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國泰綜合醫院 眼科部

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高雄長庚紀念醫院

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馬嘉徵，傅毓秀，趙效明
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新北市板橋亞東紀念醫院 眼科部

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國立臺灣大學附屬醫院 眼科部

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黃正賢，劉欣瑜
國立臺灣大學附屬醫院 眼科部

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郭鐘元，林純如，陳文祿，林正明，田彭太，何宜豪，蔡宜佑
中國醫藥大學附設醫院 眼科部

PO-100 ► Retina & Vitreous
Choroidal Nevus with Choroidal Detachment Simulating Intraocular Melanoma- Case Report
林純如，田彭太，陳文祿，林正明，何宜豪，蔡宜佑
中國醫藥大學附設醫院 眼科部

PO-101 ► Retina & Vitreous
Endogenous Endophthalmisis with Concomitant Scler Ulcer: A Case Report
夏寧憶，田彭太，陳文祿，林純如，林正明，何宜豪，蔡宜佑，江鈞綺
中國醫藥大學附設醫院 眼科部

PO-102 ► Retina & Vitreous
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何奕瑢，林純如，陳文祿，林正明，田彭太，何宜豪，蔡宜佑
中國醫藥大學附設醫院眼科部

PO-103 ► Retina & Vitreous
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田彭太，陳文祿，林純如，林正明，何宜豪，蔡宜佑
中國醫藥大學附設醫院 眼科部

PO-104 ► Strabismus & Pediatric Ophthalmology
Selective Ophthalmic Arterial Injection of Melphalan for Intraocular Retinoblastoma: Four-Year Review
王玨，趙安年，黃浩輝，劉冠麟，高玲玉
林口長庚醫院 眼科部，林口長庚醫院 影像診療科部

PO-105 ► Strabismus & Pediatric Ophthalmology
Changes in Intraocular Ocular Pressure and Refractive Status after Pharmacologic Cycloplegic Mydriasis in Children
洪國磯，黃修眉，林蓓雯
高雄長庚紀念醫院眼科部

PO-106 ► Strabismus & Pediatric Ophthalmology
Ocular presentation of CHARG syndrome: A case report
梁巧盈，鄭元韶，王俊元，沈應誠
臺中榮民總醫院 眼科部

PO-107 ► Strabismus & Pediatric Ophthalmology
Myelinated Retinal Nerve Fibers Associated with High Myopia and Amblyopia

蔡紫薰，張逖文
國立臺灣大學附屬醫院 眼科部

PO-108 ▶ Strabismus & Pediatric Ophthalmology
Clinical presentation and management of isolated inferior rectus muscle paresis- a case report

簡毓嫻，劉耀臨
亞東紀念醫院 眼科部

PO-109 ▶ Strabismus & Pediatric Ophthalmology
Bilateral Microspherophakia and Posterior Lenticonus in a Case of Congenital Cataract

史敏秀，黃福進
國立成功大學附設醫院

PO-110 ▶ Strabismus & Pediatric Ophthalmology
Clinical characteristics of high grade foveal hypoplasia with infantile nystagmus syndrome

蕭淑方，史敏秀，黃福進
國立成功大學附設醫院 眼科部

PO-111 ▶ Strabismus & Pediatric Ophthalmology
Strabismus in children with high hyperopic anisometropic amblyopia

陳婉如，史敏秀
國立成功大學附設醫院 眼科部

PO-112 ▶ Strabismus & Pediatric Ophthalmology
Genetic study of an atypical retinoblastoma case

楊怡慧，李仲哲，潘怡潔，黃修眉，郭錫恭
高雄長庚紀念醫院 眼科

PO-113 ▶ Strabismus & Pediatric Ophthalmology
A Case of Exotropia with Depigmented Iris and Unequal Retina Pigmentation

何宜豪，謝宜靜，夏寧憶，崔永平，蔡宜佑，林慧茹
中國醫藥大學附設醫院眼科部

PO-114 ▶ Strabismus & Pediatric Ophthalmology
Central Retinal Artery Occlusion as Initial Presentation in Hemolytic Uremic Syndrome

何宜豪，夏寧憶，謝宜靜，崔永平，蔡宜佑，林慧茹
中國醫藥大學附設醫院眼科部

PO-115 ▶ Uvea & Others
Cytomegalovirus retinitis in malignant lymphoma: A case report

莊秋同，吳宗典，許淑娟
高雄榮民總醫院眼科部

PO-116 ▶ Uvea & Others
Manpower of Ophthalmologists in Taiwan

許紋銘 (Wen-Ming Hsu)，林孟穎，吳嘉敏，李佩蓉
臺北醫學大學雙和醫院 眼科

PO-117 ▶ Uvea & Others
A Study on Evidence-based Medicine Applied to Medical Civil Action

蔡健光
台南京城眼科診所，樹人醫專視光科

PO-118 ▶ Uvea & Others
Pending hypovolemic shock caused by Topical ophthalmic anesthetic eyedrop : Alcaine：A case report

蔡明輝，官珮慈
彰化秀傳紀念醫院 眼科部

PO-119 ▶ Uvea & Others
Extracellular vesicles in aqueous humor

沈秉衡[1]，王俊元[2]，沈應誠[2]，許閔彥[2,3]
[1] 普愛眼科診所 [2] 臺中榮民總醫院 眼科部 [3] 國立清華大學奈米工程及微系統研究所

PO-120 ▶ Uvea & Others
Choroidal Metastasis of Non-Small Cell Lung Cancer: A Case Report

郭淑純，李孟昇，柳景鼐，張欣怡
奇美醫學中心永康院區 眼科部

PO-121 ▶ Uvea & Others
Regression of Multiple Choroidal Metastases from Breast Carcinoma using Taxol

林孟穎
衛生福利部雙和醫院

PO-122 ▶ Uvea & Others
Sarcoidosis with multiple organs involvement: A case report

許祺鑫
臺北醫學大學雙和醫院 眼科

PO-123 ▶ Uvea & Others
Vogt–Koyanagi–Harada syndrome mimicking acute angle closure glaucoma initially

葉伯廷，林暄婕，林昌平
國立臺灣大學附屬醫院 眼科部

PO-124 ▶ Uvea & Others
Immune recovery uveitis after treatment of CMV retinitis: A case report

林昌平，劉芳瑜
國立臺灣大學附屬醫院 眼科部

PO-125 ▶ Uvea & Others
The mechanism of ameliorated experimental autoimmune uveoretinitis in Ncf1 knock-out mice

許聖民[1,2] 林佳貞[1] 謝奇璋[2]
[1] 國立成功大學附設醫院 眼科部 [2] 國立成功大學醫學院 臨床醫學研究所

PO-126 ► Uvea & Others

Secondary open-angle glaucoma in sarcoidosis --- A case report

陳芳婷

新北市板橋亞東紀念醫院 眼科部

PO-127 ► Uvea & Others

Vogt–Koyanagi–Harada Disease in Eastern Taiwan

李岳章，林淑芳，何明山，李原傑

花蓮慈濟醫院

PO-128 ► Uvea & Others

A 3-year follow-up study on the risk of stroke among patients with conjunctival haemorrhage

王宗仁，黃曼菁，何昭德，林恆慶

臺北醫學大學附設醫院眼科部

PO-129 ► Uvea & Others

Primary Vitreoretinal Lymphoma Mimicking Choroidal Melanoma Ultrasonographically – Case report

許詠瑞

亞東紀念醫院

PO-130 ► Uvea & Others

Risk Factors for Developing Glaucoma Among Patients with Uveitis

黃德光，周穎政，蒲正筠，周碧瑟

臺中榮民總醫院 眼科部

PO-131 ► Uvea & Others

Fungal endophthalmitis caused by Trichophyton spp. after cataract surgery- A case report

陳清龍[1]，林哲民[1,2]，鮑淑怡[1]，陳怡豪[1]，陳建同[1]，呂大文[1]

國防醫學院三軍總醫院眼科部[1]，國軍台中總醫院[2]

PO-132 ► Uvea & Others

Masquerade Chronic Uveitis secondary to Chronic Lymphocytic Leukemia

蔡明霖[1,2]，洪啟庭[3]，林世民[1,3]，洪純玲[4]，呂大文[1]

[1] 國防醫學院三軍總醫院眼科部，[2] 新北市慈濟醫院眼科部，[3] 國軍高雄總醫院眼科部，[4] 新光醫院眼科部

PO-133 ► Uvea & Others

Immune-Recovery Uveitis in a Patient With Cytomegalovirus Retinitis After Highly Active Antiretroviral Therapy

吳嘉敏，沈筠惇

台北醫學大學部立雙和醫院 眼科部

Cornea & Ext. Eye

PO-01

Conjunctival pseudotumor: a case report

結膜偽腫瘤 - 病例報告

沈應誠，鄭慧敏，王俊元，魏利真，陳慧雯
台中榮民總醫院

Purpose: We report a 51-year-old woman with a conjunctival salmon mass clinicopathologically diagnosed as inflammatory pseudotumor.
Methods: Case report.
Results: A 51-year-old woman suffered from left ocular pain and redness for 3 months. On examination, best-corrected visual acuity was 6/10 OD and 6/8.6 OS. Intraocular pressure was 23 mmHg in the left eye. Slit-lamp showed a salmon colored, elevated mass from the nasal to superior bulbar conjunctiva of left eye. Besides, nasal cornea was infiltrated with inflammatory cells and one plus cells in the anterior chamber was noted. Orbital CT showed no abnormality within orbit. She underwent excisional biopsy for diagnosis. Pathologic sections shows conjunctiva with submucosal nodular lesion composed of dense chronic inflammatory cells infiltration (lymphocytes, plasma cells, histiocytes and neutruphils), vessels and fibroblasts proliferation, which is consistent with so called inflammatory pseudotumor. Immunostaining revealed a mixture of kappa and lambda chain positivity in conjunctival pseudotumor, with no evidence of monoclonality. Further PAS and acid-fast stains showed no microorganism. She underwent oral and topical corticosteroid treatment and slowly tapered for 4 months. Conjunctival pseudotumor disappeared and inflammatory reactions subsided.
Conclusion: This case was compatible histopathologically with inflammatory pseudotumor and corticosteroids should be slowly tapered.

PO-02

A case report of gonorrheal conjunctivitis mimicking preseptal cellulitis

淋病雙球菌結膜炎似隔膜前蜂窩性組織炎病例報告

林子瑜，吳淑雅，蕭靜熹
林口長庚紀念醫院 眼科部

Purpose: To report a case of gonorrheal conjunctivitis mimicking preseptal cellulitis.
Methods: Case report
Results: A 20 year-old- male presented as a red and painful right eye with purulent discharge for one day. He also had urinary tract infection with unknown pathogen under medication treatment for days. Visual acuity (VA) was 16/200 in the right eye and 20/200 in the left. The patient had lid edema and redness, severe hemorrhagic chemosis conjunctiva, no restriction of eye movement in all directions and diffuse corneal epithelial edema. The culture report of discharge revealed moderate growth Neisseria. Gonorrhoeae. The patient received systemic ceftriaxone treatment and topical ciprofloxaine as well as lavage of the affected eye with saline
Conclusions: Gonococcal conjunctivitis may induce conjunctival inflammation with eyelid involvement. The outcome of gonococcal conjunctivitis is related to the severity of disease at the start of adequate therapy. Although gonococcal conjunctivitis with eyelid involvement is relatively rare, it is very important to consider the disease and prompt culture to confirm the diagnosis.

PO-03

Aspergillus sclerits related to the previous pterygium surgery– a case report

與之前眼翳手術相關聯的 Aspergillus 鞏膜炎：案例報告

侯育致，許雅睿
國立臺灣大學附屬醫院，眼科部

Purpose: To present a cases with Aspergillus necrotizing scleritis related to the previous pterygium surgery who has successful treatment with intensive antifungal agents.
Methods: An interventional case report.
Results: A 70-year-old female, who received pterygium excision surgery 30 years ago, had slowly progressive eye pain and blurred vision in the left eye in the recent 1 year. The initial visual acuity was 0.1, and melting sclera with a large calcium plaque was noted. Under the impression of necrotizing scleritis, topical gentamicin and rinderon were given. Due to no improvement, excision of the calcium plaque with corneoscleral patch graft was performed. However, the culture yielded Aspergillus fumigatus and the graft melted. She received scleral patch graft, amniotic membrane transplantation, tarsorrhaphy, and also oral itraconazole and topical natamycin, but the amniotic membrane melted with uveal show. Oral medication was shifted to vorizonazole and her scleritis gradually subsided one month later.
Conclusions: Fungal necrotizing scleritis is rare and may need intensive and long-term antifungal treatment.

PO-04

Syphilitic Interstital keratitis– A Case report

梅毒性間質性角膜炎 - 病例報告

涂俊銜 , 張芳滿
彰化秀傳紀念醫院 眼科部

Purpose: To present a rare case of acquired syphilitic interstital keratitis.
Methods: A Case report
Results: The following is a case presentation of acquired syphilitic keratitis in a 52 years old woman without other ocular finding like uveitis and retinitis nor systemic infection.
After treatment with antibiotic (penicillin) and steroid, her visual acuity recover..
Conclusions: Interstital keratitis (IK) is a nonulcerative inflammatory reaction of the corneal stroma. Its pathogenesis is proposed to involve an autoimmune response like that seen in Cogan syndrome. Congenital syphilitic keratitis was common then acquired syphilitic interstital keratitis. Serological examination is important.

PO-05

Moxifloxacin Retards Human Corneal Fibroblast Migration via ZO-1-Dependent Modulation

Moxifloxacin 透過改變 ZO-1 的表現抑制人類角膜纖維母細胞的移行能力

張淑雯 [1,2,*], 陳燦麒 [1], 江佩修 [1]
[1] 亞東紀念醫院 眼科 , [2] 台大醫院 眼科

Purpose: To investigate the molecular role of endogenous ZO-1 expression in moxifloxacin (MOX)-modulated cell migration of human corneal fibroblasts (HCFs).
Methods: HCFs were incubated in complete DMEM with MOX at 0, 10, 50, and 100 mg/ml. HCF migration was monitored by an ibidi Culture Insert under real-time cultured cell monitoring system. A lentivirus-based pseudovirion infection system with fluorescent ZO-1-expressed plasmid was used to highly express the ZO-1 in HCFs. Expression of ZO-1, PKC ε , Cdc42, MRCK β , Rac1, and p-Rac1 was analyzed by immunoblotting. Phosphorylation of PKC ε or ZO-1 was also analyzed by immunoblotting following immunoprecipitation with their specific antibodies.
Results: MOX noticeably suppressed HCF cell migration in a concentration-dependent manner, but increased ZO-1 expression in HCFs. However, expression of fluorescent ZO-1 enhanced the migration rate of HCFs. Furthermore, of the migratory proteins, MOX did not affect the expression of Cdc42, MRCK β , PKC ε , and Rac-1 in HCFs. In contrast, MOX reduced the phosphorylation of ZO-1 and PKC ε , but increased the phosphorylation of Rac1.
Conclusions: MOX inhibits HCF cell migration via PKC ε -dependent dephosphorylation of endogenous ZO-1 expression.

PO-06

Moxifloxacin Suppresses Human Corneal Fibroblast Viability via Fibulin-1-Dependent Modulation

Moxifloxacin 透過改變 Fibulin-1 的表現抑制人類角膜纖維母細胞的生存能力

張淑雯 [1,2], *, 陳燦麒 [1], 李智傑 [1], 鄧涵方 [1]
[1] 亞東紀念醫院 眼科 , [2] 台大醫院 眼科

Purpose: To explore the molecular role of endogenous fibulin-1 (FBLN1) expression in moxifloxacin (MOX)-modulated cell viability of human corneal fibroblasts (HCFs).
Methods: HCFs were incubated in complete DMEM with MOX at 0, 10, 50, and 100 mg/ml. HCF viability was measured by WST-1 assay. Transcription level and protein expression of FBLN1 were analyzed by real-time quantitative PCR and immunoblotting, respectively. The cell adhesion efficiency was monitored under real-time cultured cell monitoring system. Fluorescent FBLN1 isoforms (FBLN1A, FBLN1B, FBLN1C, and FBLN1D) were highly expressed in HCFs by a lentivirus-based pseudovirion infection system.
Results: MOX significantly inhibited cell proliferation and adhesion efficiency of HCFs in a concentration-dependent manner. In addition, MOX negatively regulated transcription level and protein expression of FBLN1 in HCFs. In contrast, higher expression of fluorescent FBLN1 isoforms enhanced cell proliferation and adhesion affinity of HCFs. Furthermore, the higher expressions also improved the effects of MOX on cell proliferation and adhesion affinity.
Conclusions: MOX represses HCF cell viability apparently via reduction on cell adhesion efficiency, resulting from decrease of endogenous FBLN1 expression.

PO-07

Pterygium associated with decrease in corneal endothelial cell density

翼狀贅片與角膜內皮細胞密度減少之關係

許閔彥 , 沈應誠
台中榮民總醫院

Purpose: To investigate the relationship between pterygium and a decrease in corneal endothelial cell density (ECD) in patients with unilateral primary pterygium.
Design: Retrospective, cross-sectional study.
Methods: Patients with unilateral primary pterygium

were divided into three groups based on the degree of cornea involved. Corneal ECD was measured in both eyes and the fellow eyes were considered as controls. The relationship between the percentage of pterygium to cornea and a decrease in ECD was analyzed. An increase in astigmatism in pterygium eyes was evaluated for association with decreased ECD by using the Pearson correlation test and receiver operating characteristic (ROC) curves.
Results: Ninety patients with unilateral primary pterygium were included. The difference of corneal ECD between pterygium eyes and control eyes ranged from +9.6 to -37.7%, with a mean of -9.11± 0.99%. The mean difference in ECD was -0.96± 5.23% in group 1, -9.56± 7.96% in group 2, and -16.81± 7.18% in group 3, respectively. The Pearson correlation statistical test showed a positive linear correlation between a decrease in corneal ECD and the percentage of pterygium to cornea. An increase in astigmatism was correlated with a decrease in ECD in pterygium eyes. The area under the curve (AUC) determined by astigmatism induced by pterygium was 0.818 corresponding to 77.78% sensitivity and 95.24% specificity.
Conclusions: Larger pterygium may cause more decrease in corneal ECD. Surgical intervention should be considered in
patients with extensive pterygium involvement in the cornea or a significant increase in astigmatism.

PO-08

Recovery of limbal stem cell deficiency-triamcinolone subconjunctival injection for a case of giant papillae keratoconjunctivitis

以結膜下注射 triamcinolone 治療巨乳突角結膜炎引起之輪狀細胞缺失症

賴薇羽，郭乃文，陳俊良，許淑娟
高雄榮民總醫院 眼科部

Purpose: to report a case of partial recovery of focal limbal stem cell deficiency in a case of giant papillae keratoconjunctivitis, treated with subconjunctival injection of triamcinolone.
Methods: case reports and literature review
Results: A 10-year-old boy was referred to our hospital for persistent red eye and itchy eye OU for several years. Progressively decreasing vision OU was also complained. Ocular examination showed bulbar hyperemia, diffuse giant papillae over palpebral conjunctiva, predominantly in the upper eyelid, and thickened, gelatinous limbus OU with Horner-Trantas dots at the superior limbal area OS. An opaque grayish projection of conjunctival epithelium emanating from superior limbus to the cornea of the left eye was also noted. Giant papillary resection and subconjunctival injection of Triamcinolone were given. Complete recovery of Horner-Trantas dots was found and the previous irregular epithelium on the superior corneal surface was replaced by normal corneal epithelium 6 weeks later afterward treatment. Improvement of vision from 6/20 to 6/8.6 of the left eye and was also found.
Conclusions: .Limbal stem cell deficiency is one of the complications of long-standing allergic keratoconjunctivitis. We report a case of partial recovery of focal limbal stem cell deficiency in a case of giant papillae keratoconjunctivitis, treated with subconjunctival injection of triamcinolone.

PO-09

The application of molecular diagnosis in herpetic keratitis

分子診斷應用於疱疹性角膜炎

郭明澤，余涵如，方博炯，羅融，姜威宇，賴雨璇，曾心凌
高雄長庚紀念醫院 眼科

Purpose: Herpetic keratitis (HK) may be difficult to diagnosis under recurrent or severe attack. The aim of the study is to investigate the molecular diagnosis for clinically suspected herpetic keratitis.
Methods: A non-randomized prospective study for rapid diagnosis in microbial keratitis (MK) is being performed in Kaohsiung Chang Gung Memorial Hospital. Molecular diagnosis will be used to recover the clinical suspected HK. The clinical outcomes for these confirmed HK patients will be analyzed.
Results: Typical dendritic keratitis can be diagnosed clinically as herpes simplex virus (HSV) keratitis and proved correctly by molecular assay for human herpesviruses (type 1~3). The molecular diagnosis can prove herpetic keratitis for some patients with unclear recurrent history, having some previous medication, and complicated with stromal disease. After molecular diagnosis, the patients proved as herpetic keratitis were all treated well by antiviral medication.
Conclusions: Molecular assay for herpesviruses are recommended for clinically suspected herpetic keratitis, especially for those with unclear recurrent history, previous medication to change the typical manifestation, and stromal disease.

PO-10

Split corneal transplantation for endothelial keratoplasty and deep anterior lamellar therapeutic keratoplasty

分層角膜應用於內皮細胞移植與治療性深前板層角膜移植

郭明澤，方博炯，余涵如

高雄長庚紀念醫院 眼科

Purpose: Split corneal transplantation is a popular and optimal usage of donor cornea. The aim of the study is to report this application in our practice.
Methods: A donor cornea was split into 2 grafts; one was used immediately for descemets stripping automated endothelial keratoplasty (DSAEK), and the other was preserved by glycerin medium for deep anterior lamellar therapeutic keratoplasty (therapeutic DALK) a few months later. Clinical outcomes were recorded and analyzed for the 2 recipients.
Results: The first recipient was Fuchs corneal dystrophy with cataract. Triple procedure (phacoemulsification + intraocular lens implantation + DSAEK) was performed for this patient. Bare and best spectacle corrected visual acuity were improved to 20/30 and 20/20, respectively. The second recipient was a clinically suspected microbial keratitis. The patient received therapeutic DALK because of refractory to medicine and central deep invaded infiltrates. Graft clarity and symptoms was improved smoothly for this glycerin-preserved graft.
Conclusions: Split corneal transplantation can be used for DSAEK and therapeutic DALK. The glycerin-preserved graft can turn into clear by means of therapeutic DALK.

PO-11

Fixed Dilated Pupil (Urrets-Zavalia Syndrome) and Anterior Subcapsular Cataract Formation After Deep Anterior Lamellar Keratoplasty in Keratoconus - Two Cases Report

圓錐角膜施作 DALK 手術術後併發固定擴張性的瞳孔及前囊下白內障

陳俊良，李紹榮，許淑娟
高雄榮民總醫院

Purpose: To report two cases Urrets-Zavalia Syndrome combined with anterior subcapsular cataract formation after DALK for treating Keratoconus
Methods: Two Cases reports and literature review.
Results: Two patients underwent DALK (big-bubble technique) with diagnosis of keratoconus. During DALK surgery, the anterior chamber was partially filled with air at the beginning of procedure. Because one case developed microperforation at inferior apical thinning region, C3F8 gas tamponade was performed in this case. In another case, air was left in the anterior chamber for a couple of days at the ends of DALK. Both of them developed high intraocular pressure that was controlled with anti-glaucoma medications. After 1~2 weeks, both cases developed fixed dilated pupil. One case developed dense anterior subcapsular opacity, the other case developed one quadrant posterior synchiae.
Conclusion: Fixed dilated pupilla is an uncommon but well-known complication of keratoplasty. The pupillary abnormalities are not rare after keratoplasty for keratoconus, so glaucoma is not the only reason to the simple paretic pupil. The exact mechanism remains unknown but postoperative high IOP seems to be an important risk factor following DALK.

PO-12

Bee sting of the cornea and conjunctiva – a case report

角膜及結膜蜜蜂螫傷 – 病例報告

曾士豪，蔡明輝
彰化秀傳紀念醫院 眼科部

Purpose: To report a case of bee sting of the cornea and conjunctiva.
Methods: Case report.
Results: A year-old male presented with suddenly pain, blurred vision and epiphoria in the left eye when riding motorcycle cross a bee farm. Clinical examination revealed a bee sting with venom sac obliquely penetrated conjunctiva and inserted partial cornea. The eye showed conjunctival hyperemia, cornea infiltration, and descemet membrane folding around the venom injection site over 2 o' clock meridian. The visual acuity was 1.0 in the left eye. The bee sting was removed surgically.
After empiric topical antibiotics and steroid treatment for 1 week, the cornea infiltration and descemet membrane folding subside and the symptoms released.
Conclusions: Bee stings of the cornea and conjunctiva are rare, and responses range from minimal to severe. Toxicity and following inflammation can lead to serious intraocular damage such as ophthalmoplegia, iris atrophy, cataract formation or neuropathy. The current treatment of choice is systemic and local use of steroid and antibiotics.

PO-13

Microscopic Polyangiitis Manifesting as lymphoma

以淋巴癌表現之顯微性多血管炎

黃奕勛
成大醫院

Purpose: To report a case of microscopic polyangiitis (MPA) clinically manifesting as lymphoma.
Case description: An 82-year-old man was referred by his local ophthalmologist for a six-month history of red right eye (OD). Treatment with topical corticosteroids and antibiotics had not helped. Visual acuity at his

initial visit was 20/70 (OD). Slit-lamp examination showed an injected area from 10 to 2 o' clock over the superior bulbar conjunctiva. Lymphoma was suspected due to clinical presentation, and excisional biopsy was performed.
Results: Pathology revealed negative finding of conjunctival lymphoma, however, vasculitis was noted. Autoimmune profiles showed high titer of p-ANCA, and MPA was diagnosed by rheumotologist.
Conclusions: It is rare that MPA could lead to chronic conjunctivitis. Thus, in patients with intractable conjunctivitis, further systemic evaluation and even the biopsy of the conjunctiva might be needed to establish the underlying systemic diagnosis.

PO-14

Histopathological and Corneal Confocal Microscopy Findings in Sporadic cases of Macular Corneal Dystrophy

班狀角膜失養症之組織病理及光學共軛顯微鏡下之變化

黃柏憲，陳俊良，許淑娟
高雄榮民總醫院 眼科部

Purpose: To present histopathological and corneal confocal microscopy findings in a series of patients with macular corneal dystrophy (MCD).
Design: Case series
Methods: 12 eyes of 6 patients was diagnosed as variant type of MCD under slit-lamp microscopy evaluation and all patients were evaluated by means of corneal confocal microscopy
Results: In all patients, the slit-lamp microscopy revealed gray-white, indistinct round opacities in pre-Descemet corneal stroma of peripheral cornea, mostly in superior and inferior part in each eyes that resembles mutton-fat KPs. Pathology showed deposition of granular material, primarily over posterior stroma near endothelium but dispersed over the whole stromal layer. Alcian blue of the deposition revealed glucosaminoglycan (GAGs), which indicated the diagnosis of macular dystrophy. 6 eyes of 6 patients progressed from limbus to limbus and resulted to corneal decompensensation.
Conclusions: We report a series of variant types of MCD. Pre-Descemet corneal opacities occurred from periphery, mostly in superior cornea. Recurrent corneal erosion is not common, visual loss tends to occur lately in th 6^{th} or 7^{th} decades of life due to corneal decompemsation.

PO-15

A case of Methicillin-resistant Staphylococcus aureus keratitis

抗藥性金黃色葡萄球菌角膜炎之案例報告

黃渝芸[1]，范乃文[1,2]，林佩玉[1,2]，李淑美[1,2]，李鳳利[1,2]
台北榮民總醫院眼科部[1]，國立陽明大學醫學系眼科部[2]

Purpose: To report a case of Methicillin-resistant Staphylococcus aureus (MRSA) keratitis.
Methods: Case report and literature review.
Results: A 77-year-old woman presented with bilateral yellowish eye discharge for over six months. She had ever received topical 0.5% levofloxacin four times a day for months. Slit-lamp biomicroscopy revealed much yellowish discharge, one corneal ulcer of the right eye and two corneal ulcer of the left eye. She was prescribed 0.5% moxifloxacin per hour day and night and the treatment was shifted to 2.5% vancomycin given that culture of corneal scraping and eye discharge yielded MRSA. The corneal ulcer of both eyes resolved with topical vancomycin for 2 weeks.
Conclusion: MRSA have become increasingly important multi-drug-resistant pathogens in recent years. Ophthalmologists should be vigilant for community-acquired MRSA. With prompt and appropriate treatment, the prognosis is often good.

PO-16

Conjunctival salmon patch like lesions: a case series

結膜之鮭魚顏色斑塊

鄭慧敏，沈應誠，梁巧盈，林耿弘
台中榮民總醫院

Purpose: To report clinical and histopathological features of 'salmon patch' -like conjunctival lesions in 18 patients.
Methods: Patients who presented between 2005 and 2013 with a conjunctival 'salmon-patch' -like lesion, were identified by chart review.
Results: Eighteen patients aged 9-63 years, presented with an elevated pink conjunctival mass. There were 7 males (39%) and 11 females (61%); all patients (100%) were Asians. The conjunctival lesions were unilateral in 16 patients and bilateral in 2 patients. The anatomical location included bulbar conjunctiva (n=15, with superior quadrant in 1, inferior quadrant in 1, temporal quadrant in 5, nasal quadrant in 6 and diffuse distributed in 2), fornix (n=5, with upper fornix in 1 and lower fornix in 4) and caruncle (n=1). Sixteen eyes of 16 patients underwent an excisional biopsy that histopathologically showed 6 patients with lymphoma, 3 patients with reactive lymphoid hyperplasia, 1 patient with atypical lymphoid hyperplasia, 2 patients with leukemia, 1 patient with sebaceous carcinoma, 1 patient with pseudotumor, 1 patient with multiple myeloma

and 1 patient with spindle cell xanthogranuloma. Two other eyes were treated with antiallergic medication with resolution of the lesion, and were therefore diagnosed clinically with reactive lymphoid hyperplasia (RLH). Additional site of ocular involvement was found in 1 patient with pseudotumor in the cornea. Systemic involvements were found in 1 patient with multiple myeloma, and 2 patients with leukemia. Overall, one patient died of leukemia, at 10 months after the diagnosis of the ocular disease, and one patient with multiple myeloma died 18 months later.
Conclusions: Lymphoma and reactive lymphoid hyperplasia are found more often in those patients with conjunctival salmon patched lesions. It is clinically difficult to differentiate between tumor growth and inflammation. Prompt diagnosis with excisional biopsy is always crucial for following proper treatment.

PO-17

In Vivo Confocal Biomicroscopic finding of Interstitial Keratitis

間質性角膜炎在角膜共軛顯微鏡下之發現

梁知本，陳建同，呂大文
三軍總醫院眼科部

Purpose: To describe a case of Interstitial Keratitis aided by confocal biomicroscopy.
Patients and Methods: a case report with slit-lamp biomicroscopy, external eye photography and confocal biomicroscopy.
Results: A 32-year-old female presented in ophthalmologic clinic for blurred vision of both eyes for one week.Corrected visual acuity was 6/15 in both eyes . With slit lamp biomicroscopy, the microcystic edema and endothelial patch over centrl area were noted. Confocal biomicroscopy were conducted to localize the lesion depth and its characteristics to this lesion. The corneal epithelium show the enlarged cell and prominent nucleus, The nerve fibers of the subepithelial plexus were thin and poorly reflective,with interruptions and lack of of the typical branching patternThe endothelium cell also showed swelling change.
Conclusions: Confocal Microscopy was able to provide detailed images of corneal alternations in interstitial keratitis .

PO-18

The effects of microgravity on characteristics of mesenchymal stem cells in human limbal fibroblasts

微重力對角膜輪部纖維母細胞之間葉幹細胞特性影響研究

梁章敏，戴明正
三軍總醫院眼科部

Purpose: We investigated the effects of microgravity on characteristics of mesenchymal stem cells in human limbal fibroblasts.
Methods: Limbal fibroblasts were isolated from the limbal stroma by collagenase alone or following dispase removal of the limbal epithelium, and cultured on plastic in Dulbecco's modified Eagle's medium (DMEM) with 10% fetal bovine serum (FBS). Expression of cell markers, cell proliferation assay, induced differentiation, and ability of supporting limbal epithelial stem cells were compared between the cells experiencing pre-exposure of normal microgravity and microgravity.
Results: The limbal fibroblasts experiencing pre-exposure of microgravity showed higher level of expression of CD105, CD90, CD29 and SSEA4. The profile was further confirmed by RT-PCR. These cells have slower proliferation rate and also have greater potential of differentiation into adipocytes, chondrocytes and osteocytes. Upon co-culture with limbal epithelial stem cells, these cells maintained higher expression of p63α and lower expression of cytokeratin 12 than those without pre-exposure of microgravity.
Conclusion: The characteristics of mesenchymal stem cells in human limbal fibroblasts are enhanced by microgravity.

PO-19

Pigmented changes or deposits of the cornea and lens lead to the diagnosis of intraocular foreign body.

以角膜和水晶體的色素性變化或沉澱診斷眼內異物

何宜豪，吳映萱，謝宜靜，江鈞綺，蔡宜佑
中國醫藥大學附設醫院眼科部

Purpose: To describe two cases of intraocular foreign body (IOFB), which was presented as pigmented changes or deposits of the cornea and lens.
Results: [Case 1] A 26-year-old female complained progressive blurred vision of her left eye. She denied any trauma history, but she works as an operator of sewing machine. Her BCVA was 1.0 in right eye and 0.9 in left eye. IOP was 13mmHg in right eye and 15mmHg in left eye. Ocular examinations of her left eye revealed faint brownish pigmentation over upper peripheral cornea resembling Kayser-Fleischer ring. Cataract with dense brownish change in a sunflower-like pattern (Figure 1) and yellowish opacity over anterior vitreous (Figure 2) were also noted in her left eye. No visible FB was found during fundus examinations. Blood screening for Wilson's disease and other hepatobiliary disease

were negative. Orbital computerized tomography (CT) was arranged. One hyperdense metallic FB was found in her left eyeball (Figure 3). The patient hesitated the surgery and loss follow-up.
[Case 2] A 40-year-old male was transferred to our outpatient department with complaints of persisted photophobia for 3 months. He reported a history of injury to his right eye 3 months ago. His best-corrected visual acuity (BCVA) was 0.3 in right eye and 0.4 in left eye. IOP was 11mmHg in right eye and 16mmHg in left eye. Ocular examinations revealed much brownish deposits on the corneal endothelium and lens surface of his right eye (Figure 4). Dilated and fixed pupil was also noted in his right eye. No visible FB was found during fundus examinations. Orbital computerized tomography (CT) was arranged (Figure 6). One hyperdense metallic FB was found in his right eyeball. Vitrectomy and IOFB removal were performed then.
Conclusion: IOFB remains a clinical challenge to ophthalmologist. High suspicion to the condition may prompt the correct diagnosis. Pigmented changes or deposits of the cornea and lens can be the first signs noted in patient with IOFB and often be regarded as other diseases (in Case 1, as uveitis and in Case 2, as Wilson's disease). Careful history taking and searching for other signs of siderosis or chalcosis also help make the diagnosis. Orbital CT has high yield of IOFB and can be arranged in uncertain cases.

PO-20

Neurotrophic ulcer with corneal perforation repaired with amniotic membrane by fibrin glue.

以組織凝膠合併羊膜修補神經失養性潰瘍所造成的角膜穿孔

何宜豪，吳映萱，謝宜靜，江鈞綺，蔡宜佑
中國醫藥大學附設醫院眼科部

Purpose: To describe a case of neurotrophic ulcer with corneal perforation repaired with amniotic membrane by fibrin glue.
Patient and Method: Observational case report
Results: A 51-year-old male complained blurred vision and gritty of his left eye for months. His best-corrected visual acuity (BCVA) was 0.9 in right eye and counting fingers (CF) in left eye. Ocular examinations of his left eye revealed dendritic ulcerative lesion and herpetic keratitis was diagnosed. Oral acyclovir and topical lubrication were administrated. The dendritic ulcer improved gradually.
However, in the following 2 months, an oval area of persisted epithelial defect with stromal melting in the central cornea was found. Frequent topical autoserum and lubrication ointment at bedtime were applied under the impression of neurotropic ulcer. A 2-mm size of corneal perforation was still happened after then. Amniotic membrane transplantation (AMT) by fibrin glue was performed smoothly. After operation, leakage of aqueous fluid and corneal thinning stopped. No amniotic membrane dislocation was reported. He recovered well with cornea scarring during follow-up.
Conclusion: Corneal perforation happened in neurotrophic ulcer. Traditional AMT with 10-Nylon suture fixation is sometimes difficult because of poor corneal condition and the fear of cheese wiring. In cases with small perforation (<3mm), AMT with fibrin glue may be an option. Easy application and less discomfort of patients are the advantages.

PO-21

Patients with blepharitis are at elevated risk of anxiety

利用健保資料庫評估眼瞼炎增加罹患焦慮症風險之研究

何宜豪，蔡宜佑，江鈞綺
中國醫藥大學附設醫院眼科部

Introduction: Population-based cohort study on the risk of depression in patients with blepharitis is limited. This study evaluated whether blepharitis patients are at a higher risk of anxiety.
Design: A retrospective cohort study.
Methods: We used the universal insurance claims data from 1997 to 2010 in Taiwan to identify annually patients with newly diagnosed blepharitis (N = 9764) and without the disease (N = 39056). Incidences, rate ratios (IRR) and hazard ratios (HR) of anxiety and depression were measured for both cohorts by baseline demographic characteristics and comorbidities until the end of 2010.
Results: Compared with the non-blepharitis cohort, the blepharitis cohort had higher incidence of anxiety (15.9 vs. 9.5 per 1000 person-years), with an adjusted HR of 1.58 (95% confidence interval (CI) = 1.46-1.70). The blepharitis cohort to the non-blepharitis cohort IRR decreased from 1.73 in the first quartile to 1.32 in the 4(th) quartile for anxiety.
Conclusions: Patients with blepharitis are at elevated risks of anxiety. The risk is higher in earlier period after the diagnosis of blepharitis, and declines by time, but remains significantly higher for those with blepharitis than those without blepharitis.

PO-22

Patients with blepharitis are at elevated risk of depression

利用健保資料庫評估眼瞼炎增加罹患憂鬱症風險之研究

何宜豪，蔡宜佑，江鈞綺
中國醫藥大學附設醫院眼科部

Introduction: Population-based cohort study on the risk of depression in patients with blepharitis is limited. This study evaluated whether blepharitis patients are at a higher risk of depression.
Methods: We used the universal insurance claims data from 1997 to 2010 in Taiwan to identify annually patients with newly diagnosed blepharitis (N = 9764) and without the disease (N = 39056). Incidences, rate ratios (IRR) and hazard ratios (HR) of depression were measured for both cohorts by baseline demographic characteristics and comorbidities until the end of 2010.
Results: Compared with the non-blepharitis cohort, the blepharitis cohort had higher incidence of depression (7.66 vs. 5.05 per 1000 person-years), with an adjusted HR of 1.42 (95% CI = 1.28–1.58). The blepharitis cohort to the non-blepharitis cohort IRR decreased from 1.67 in the first quartile to 1.29 in the 4th quartile for depression.
Conclusions: Blepharitis is characterized by discomfort eyes and unattractive appearance, which may cause uneasy feeling and negative social implications for the patients. The present study shows patients with blepharitis are at higher risk of depression. Our findings are of clinical importance given the high prevalence of blepharitis in the general population, and the fact that depression are disorders readily treatable and often under diagnosed because its symptoms are frequently overlooked.

PO-23

Anesthetic Abuse Keratopathy Disguise as Exposure Keratopathy

狀似暴露性角膜病變之麻醉劑濫用角膜炎

何宜豪，謝宜靜，吳映萱，蔡宜佑，江鈞綺
中國醫藥大學附設醫院眼科部

Purpose: We present a case of topical anesthetic abuse keratopathy in bilateral eyes which mimicked exposure keratopathy related to thyroid eye disease (TED).
Methods: A 47-year-old man presented with corneal superior ring infiltration, inferior epithelial defect and thining with neovascularization (NV) in the left eye (Fig.1). He underwent orbital decompression due to TED at the other hospital 1 year ago, and amniotic membrane transplantation (AMT) due to uncontrolled exposure keratopathy 1 month ago. There was no abnormal findings in the right eye. He visited our clinics again because of progressive blurred vision and pain in the right eye 3 months later. He presented with severe conjunctiva injection, corneal ring infiltration, inferior epithelial defect, stromal melting, large keratic perciptates (KPs) and anterior chamber (A/C) in the right eye (Fig.2). The left eye was thining with NV and subepithelial fibrosis. The intraocular pressure (IOP) was 25, OD and 36, OS. Tracing the details of history, he addicted to topical anesthesia Alcaine obtained from other hospitals for pain relief. Although discontinuation of the drug was strongly imformed, his medical compliance was poor.
Results: He underwent tarsorrhaphy to prevent progressive melting in the right eye initially. Topical duratears QID, 50 % auto-serum Q1H, Azagar BID and oral prednisolone 5mg 3# BID were prescribed. However, unhealed epithelial defect and progressive stromal melting was noted because of persistent addiction of Alcaine. He loss the follow-up visits.
Conclusion: TED related exposure keratopathy may lead to chronic corneal epithelial defect and stromal melting. If there is no improvement after intensive treatments, other differential diagnosis must be in consideration. Anesthetic abuse keratopathy is characterize by unhealed corneal epithelial defect and progessive ring infiltration even with aggressive lubricants and tarsorrhaphy. Prohibition of topical anesthetics is crucial to success treatment.

Glaucoma

PO-24

Interleukin-6(-174) locus Polymorphism related to the severity of Normal Tension Glaucoma

Interleukin-6(-174) 基因多型性與眼壓正常性青光眼的嚴重度相關

王俊元，羅能文，沈應誠
台中榮總眼科

Purpose: The potential similarities in cellular apoptosis leading to neuro-degeneration between Alzheimer's disease and NTG were shown in recent studies. IL-6 (-174 C/G) polymorphisms have been reported to be associated with a risk of Alzheimer's disease (AD). The purpose of our study was to investigate the role of IL-6 polymorphisms in Chinese NTG patients.
Methods: In this case-control study, 249 people with NTG and 262 healthy controls in the Chinese population were enrolled. Patients and controls were genotyped for the C/G polymorphism at position -174 of the IL-6 gene promoter region. Age at diagnosis, cup /disc(C/D) ratio, and visual field were examined for associations with the polymorphism.
Results: There was no significant difference in the frequency of IL-6 (-174) alleles or genotypes in the NTG patients compared to that in the control group (p>0.7). Interestingly, IL-6 (-174) GG genotype may increase the risk for NTG progression and severity according to the C/D ratio.(OR:1.93 ; 95% CI,1.1-3.7 ,P=0.04) .

Conclusion: We conclude that IL-6 (-174)C/G polymorphism does not increase the risk of developing NTG. The IL-6 (-174) G variant is associated with large C/D ratio in NTG. IL-6 (-174) polymorphism may be associated with severity and progression of NTG.

PO-25

A case of primary iridociliary cysts

原發性虹膜睫狀體囊腫病例報告

王清泓，林宣君，劉欣瑜，林昌平
國立臺灣大學附屬醫院 眼科部

Purpose: To report a case of primary iridociliary cysts
Methods: A case report
Results: A 52 year-old man who denied any systemic disease was referred to our glaucoma clinic for evaluation of plateau iris. He had an unremarkable ophthalmologic history except myopia and there was no family history of glaucoma. An extremely narrow iridocorneal angle at the inferior-temporal part of left eye was found accidentally during health exam. In our clinic, it was noted that the central anterior chamber was deep and peripheral chamber was shallow in the both eyes. Intraocular pressure of both eyes was within normal range. Gonioscopy found a lumpy iris figure at the inferior-temporal part of left eye. However, the angles of both eyes were generally open. The ultrasound biomicroscopy (UBM) showed bilateral cystic lesions at iridociliary area.
Conclusions: Primary iridociliary cysts are often found in patients as an incidental finding during a routine ophthalmic evaluation and if asymptomatic do not require any treatment. UBM is a useful adjunct to the clinical examination in distinguishing primary cysts of the iris pigment epithelium from solid uveal neoplasms.

PO-26

Open-angle glaucoma and the risk of stroke development: a five-year population-based follow-up study

隅角開放性青光眼與發生中風之風險：以人口為基礎之五年期追蹤研究

何昭德，黃曼菁，薛群美，王宗仁，蔡振行，李思慧
臺北醫學大學附設醫院眼科

Background: Open-angle glaucoma (OAG) is associated with some of the risk factors of stroke development, which is the most common cause of serious disability in adults. It would be of clinical relevance to investigate if OAG is a predictor for the future development of stroke.
Methods: Data were retrospectively collected from a sub-database of the Taiwan National Health Insurance Research Database. The study cohort comprised all patients with a diagnosis of OAG in 2001 (n = 4,032). The comparison cohort was comprised of randomly selected patients (n = 20,160). Cox proportional hazard regression was utilized to compute the 5-year stroke-free survival rate after adjusting for confounding factors.
Results: Stroke developed in 14.9% of patients with OAG and 9.5% of patients in the comparison cohort during the 5-year follow-up period. OAG patients had significantly lower 5-year stroke-free survival rates than patients in the comparison cohort. After adjusting for patients' demographic characteristics and selected comorbidities, OAG patients were found to have a 1.52-fold (95% confidence interval of 1.40~1.72) higher risk of suffering a stroke than the matched comparison cohort.
Conclusions: OAG patients demonstrated a significantly increased risk of stroke development during the 5-year follow-up period.

PO-27

Glaucoma, Alzheimer's Disease, and Parkinson's Disease: An 8-year Population-based Follow-up Study

以台灣全民健保資料庫分析青光眼與阿茲海默症和帕金森氏症之關聯

林怡嬋，林億倫，沈筠惇，許紋銘
臺北醫學大學雙和醫院 眼科

Background: Glaucoma is the leading cause of irreversible blindness worldwide and open-angle glaucoma (OAG) is the most common type of glaucoma. Previous studies have been unable to determine an association between OAG and Alzheimer's disease (AD) and OAG and Parkinson's disease (PD).
Objective: To investigate the association between OAG (including normal-tension glaucoma) and the subsequent risk of AD or PD 8 years after OAG diagnosis.
Methods: We used a retrospective population-based cohort design to perform a propensity-score-matched analysis in the patients aged 60 years old and above. The study cohort consisted of the patients diagnosed with OAG, and the matched patients who had similar baseline characteristics but not been diagnosed with OAG.
Results: The incidence rates per 1000 person-years of AD among patients with OAG and the non-OAG controls were 2.85 (95% confidence interval [CI] = 2.22–3.68) and 1.98 (95% CI = 1.7–2.31), respectively. The incidence rates of PD among patients with and without OAG were 4.36 (95% CI = 3.55–5.36) and 4.41 (95% CI = 3.98–4.89) per 1000 person-years, respectively. A Kaplan-Meier failure curve showed that patients with OAG had a higher risk of AD than the control patients

did (log-rank test, P = .0155); however, the 2 groups exhibited the same cumulative PD hazard rates (log-rank test, P = .9315).
Conclusion: In elderly population, OAG is a significant associated with the development of AD, but not for the development of PD.
Keywords: Open-angle glaucoma, Alzheimer's disease, Parkinson's disease

PO-28

Case report: Pseudoexfoliation syndrome and pseudoexfoliative glaucoma

案例報告：假性脫屑症候群與假性脫屑青光眼

黃振宇，林昭文，郭柏邑
台大醫院眼科部

Purpose: To report a case of pseudoexfoliation syndrome and pseudoexfoliative glaucoma
Methods: Case report.
Results: A 62-year-old woman,who had high intraocular pressure (IOP) up to 24mmHg in the left eye noted accidentally while glasses fitting, was referred to our clinic. A characteristic "target pattern" deposition of pseudoexfoliative material on the anterior lens capsule in the left eye was revealed by slit lamp biomicroscopy. Gonioscopic examination showed open angle in both eyes. Fundus photography disclosed enlarged disc cupping (vertical cup-to-disc ratio (VCDR) = 70%) with superior temporal retinal nerve fiber loss in the left eye and normal disc cupping (VCDR = 40%) in the right eye. The patient denied family history of glaucoma. Pseudoexfoliation syndrome with secondary open angle glaucoma in the left eye was diagnosed. Currently, patient's IOP in the left eye is normalized with a combination of timolol /dozolamide eye drops.
Conclusions: Pseudoexfoliation syndrome is uncommon in Taiwan. The IOP level in pseudoexfoliative glaucoma is typically higher than it is in primary open angle glaucoma and is more difficult to lower. Also, wider fluctuations in IOP in patients with pseudoexfoliative glaucoma may contribute poorer visual prognosis.

PO-29

Conjunctival rotational grafting for persistent bleb leak after trabeculectomy – A case report

一例使用旋轉結膜瓣處理青光眼術後濾過泡持續滲漏

黃福進，史敏秀
國立成功大學附設醫院

Purpose: To present conjunctival rotational grafting to repair a persistent leak of filtering bleb after trabeculectomy with mitomycin C.
Methods: Case report.
Results: A 76-year-old male patient had undergone trabeculectomy with intraoperative use of mitomycin C due to cytomegalovirus-associated ocular hypertension. A microhole was noted 1 mm above the scleral flap on the bleb 1 month later. After medical treatment failed, suture repair with 10-0 nylon, subconjunctival injection of autologous blood into the bleb, and applying fibrin glue with amniotic membrane dressing were used but in vain. Shallow anterior chamber and ocular hypotony persisted in one month. Finally, we decided to excise the avascular leaking bleb and perform a rotational graft from the temporal conjunctiva to cover the denuded trap door. The bleb functioned successfully and no more leakage was noted postoperatively during the follow-up period of 10 months.
Conclusions: Bleb excision with conjunctival rotational grafting provides an alternative method in treating persistent leaks of avascular filtering bleb.

PO-30

A comparison of postoperative refractive outcome between phacoemulsification versus one-site phacotrabeculectomy

Phacoemulsification 與 phacotrabeculectomy 之術後屈光結果的比較

潘怡潔，賴盈州，林蓓雯，蔡振嘉，鄧美琴
高雄長庚紀念醫院

Purpose: In this study, we aim to evaluate whether phacotrabeculectomy will result in a greater postoperative refractive error compared with phacoemulsification.
Methods: This is a retrospective chart review of patients who underwent phacoemulsifcation for cataract or phacotrabeculectomy for cataract with glaucoma between 2011~2013. Patients were separated into 2 groups according to their surgical procedure.
Results: There were 72 subjects in the phaco group, and in the phacotrabeculectomy group, there are 48 subjects. The postoperative spherical equivalent (SE) was -0.292 ± 0.436 D, and -0.412 ± 0.822 D in the phaco and phacotrabeculectomy group, respectively. The refractive error of the actual postoperative SE from the preoperative estimated SE was -0.069 ± 0.372 D in the phaco group, and -0.115 ± 0.787 D in the phacotrabeculectomy group, which was not statistically different (p = 0.664). The mean postoperative axial length (AXL) change was -0.068 mm in the phaco group, and -0.173 mm in the phacotrabeculectomy group (p<0.001), and the postoperative anterior chamber depth (ACD) was 4.025mm and 3.801mm in the phaco and phacotrabeculectomy group, respectively

(p=0.031)
Conclusion: Our study showed that there was no statistical difference in refractive error between the 2 surgical procedures. Although a greater decrease in AXL was found in the phacotrabeculectomy group, a shorter postoperative ACD cancels out the difference.

PO-31

Water drinking test in angle closure glaucoma versus open angle glaucoma

閉角型青光眼與開角型青光眼對飲水試驗的反應之比較

潘怡潔，鄧美琴，林蓓雯，蔡振嘉，賴盈州
高雄長庚紀念醫院

Purpose: A significant portion of patients suffer from glaucoma progression despite an apparently well-controlled intraocular pressure (IOP). Water drinking test (WDT) is a test that may help identify patients that experience diurnal spikes of IOP and are at risk for glaucomatous progression. In this study, we aim to compare the difference in response to WDT between primary open angle glaucoma (OAG) versus primary angle closure glaucoma (ACG).
Methods: This is a prospective, observational study. Glaucoma patients who were medically controlled were consecutively enrolled from our glaucoma clinic. One eye from each patient was included. Study subjects received an amount of fluid challenge according to their body weight (10ml/kg). IOP at baseline was measured by tonopen tonometer, and then every 15 min for 1 hour after water drinking.
Results: 41 patients were included in this study, with 19 cases of ACG and 22 cases of OAG. There was no significance difference in the baseline IOP between the 2 groups (p = 0.994). Both groups produced similar IOP peaks, at 15, 30, 45, and 60 min. The mean maximum IOP fluctuation was 3.053 mmHg in the ACG group and 3.401 mmHg in the OAG group.
Conclusion: WDT is a useful tool to detect patients that may be at risk for glaucoma progression due to IOP spikes. Similar IOP fluctuations may be produced in both ACG and OAG patients.

PO-32

Erythropoietin Protects Adult Retinal Ganglion Cells against NMDA-Induced Damage

紅血球生成素對成年鼠 NMDA 造成之網膜毒性具神經保護作用

呂大文[1]，張志揚[2]，江樵熹[2]
國防醫學院三軍總醫院眼科部[1]，國防醫學院藥學系[2]

Purpose: This study aimed to evaluate the neuroprotective effect of EPO in the presence of N-methyl-d-aspartate (NMDA) -induced toxicity on total, small, and large retinal ganglion cells (RGCs).
Methods: Retinal cells from adult rats were cultured in a medium containing brain-derived neurotrophic factor (BDNF), ciliary neurotrophic factor (CNTF), basic fibroblast growth factor (bFGF), and forskolin. Expression of RGC markers and EPOR was examined using immunocytochemistry. RGCs were classified according to their morphological properties. Cytotoxicity was induced by NMDA. RGC survival was assessed by counting thy-1 and neurofilament-l double-positive cells.
Results: EPO offered dose-dependent (EC50 = 5.7 ng/mL) protection against NMDA toxicity for small RGCs; protection was not significant for large RGCs. Time-course analysis showed that the presence of EPO either before or after NMDA exposure gave effective protection.
Conclusions: EPO provided neuroprotection to cultured adult rat RGCs; however, the degree of protection against NMDA varied with the RGC subtype, and timing of EPO treatment.

PO-33

Efficacy and Safety of Carteolol Long-Acting Solution 2% Compared with Timolol Gel-Forming Solution 0.5% in Patients with Primary Open-Angle Glaucoma and Ocular Hypertension: a Randomized, Parallel-Group, Open-Label Phase IV Study in Taiwan

比較 Carteolol 眼藥水和 Timoptol 眼藥水對於原發性隅角開放型青光眼病人之效用及安全性

陳怡豪，姚信宇，呂大文
國防醫學院三軍總醫院眼科部

Purpose: To compare the efficacy and safety of 2% long-acting carteolol solution with 0.5% timolol gel-forming solution added to primary treatment of 0.005% latanoprost solution in the patients with primary open-angle glaucoma and ocular hypertension.
Methods: After at least 4-week primary treatment with latanoprost, all patients received the combination therapy with either 2% long-acting carteolol or 0.5% timolol gel in addition to latanoprost for 8 weeks. We measured intraocular pressure (IOP) and evaluated systemic and local adverse events between Day 1 and Day 56.
Results: Carteolol significantly reduced the IOP from baseline (latanoprost monotherapy) by 11.0% at Day 28 and 11.2% at Day 56. Timolol also reduced IOP by 11.5% at Day 28 and 11.0% at Day 56. There was no statistically significant difference in the IOP reduction

between the two groups. There was no adverse event related to the administration of these anti-glaucoma medications during the study period.
Conclusions: Both once daily carteolol and timolol medications are safe and effective treatments combined with latanoprost single therapy.

Lens

PO-34

Surgically induced astigmatism of superior and temporal clear corneal incision after bilateral phacoemulsification

兩眼晶體乳化術後上側與顳側角膜切口之手術散光變化

譚超毅 *, 張國彬, 楊博閔, 蔡忠斌
嘉義基督教醫院 眼科

Purpose: To compare surgically induced astigmatism (SIA) of superior and temporal clear corneal incision(CCI) after bilateral phacoemulsification.
Methods: This prospective study evaluate 46 eyes of 23 patients with cataract receiving bilateral phacoemulsification through a single-plane, 2.75 mm CCI, one eye by temporal incision and the other eye by superior incision. One radial suture was placed during surgery and was removed at 1 week postoperatively. Keratometric data were obtained preoperatively and at 1 month.
Results: Mean preoperative astigmatism was 1.10±0.37 D in the temporal incision group and 1.09±0.56 D in the superior incision group (p=0.48). At postoperative 1 month, mean astigmatism was 1.04±0.66 D in the temporal incision group and 1.55±0.81 D in the superior incision group (p=0.004). SIA by vector analysis was 0.62±0.28 D and 0.99±0.60 D, respectively (p=0.007).
Conclusion: Superior CCI induced significantly higher postoperative astigmatism than temporal CCI after bilateral phacoemulsification.

PO-35

Recurrent endophthalmitis caused by nontuberlous mycobacterium after cataract surgery- A case report

非結核分枝桿菌引起之白內障術後復發性眼內炎病例報告

戴明正 [1], 林世民 [1,2], 張雲翔 [1], 梁章敏 [1], 陳建同 [1], 呂大文 [1]
嘉義基督教醫院 眼科

Purpose: To present a rare case of recurrent endophthalmitis caused by nontuberculous mycobacterium after phacoemulsification with posterior chamber intraocular lens implant.
Methods: A Case report.
Results: A 53-year-old female underwent uneventful phacoemulsification with posterior chamber intraocular lens (IOL) implant in the right eye. The patient presented with acute onset of red eye and decreased visual acuity in the operative eye one month later. The patient was referred to our hospital and the delayed-onset endophthalmitis was diagnosed and Intravitreous antibiotic therapy was performed using vancomycin、amikin and vigamox. The intraocular infection has been controlled but unfortunately it became worse in the next 2 months follow-up. The surgery of removal of IOL, pars plana vitrectomy, complete capsulectomy and intravitreous injection of antibiotics were done. The result of culture showed nontuberculous mycobacterium. However, the hypotony with choroidal detachment and severe corneal edema developed. The condition got no improvement with further surgical intervention. The visual acuity was end with no light perception.
Conclusions: Nontuberculous mycobacterium is a rare cause of postoperative endophthalmitis that can not be eradicated with simple intravitreous injection of antibiotics. Although aggressive surgical intervention might control the infection, but associated complications should be cautiously evaluated.

PO-36

Increased risk of breast cancer in patients with early-onset cataracts: A nationwide population-based study

利用健保資料庫評估早發性白內障增加罹乳癌風險之研究

何宜豪, 蔡宜佑, 江鈞綺
中國醫藥大學附設醫院眼科部

Early-onset cataracts are associated with insufficient antioxidative activity, and, therefore, a potential risk of cancer. This study investigated the risk of breast cancer after being diagnosed with early-onset cataracts. Retrospective claims data from the Taiwan National Health Insurance Research Database were analyzed. Study subjects were comprised of patients with early-onset cataracts, aged 20-55 years (International Classification of Diseases, 9th Revision, Clinical Modification [ICD-9-CM] code 366.00, 366.01, 366.02, 366.03, 366.04, 366.09, 366.17 and 366.18) and newly diagnosed between 1997 and 2010 (n = 1281), and a comparison cohort without the disease (n = 5124). Both cohorts were followed up until 2010 to estimate the incidences of breast cancer. We used the Poisson regression model to compare incidence

rate ratios and the 95% confidence interval (CI). Cox proportional hazards regression was used to assess the hazard ratio (HR) of breast cancer associated with early-onset cataracts. The site-specific analysis also showed a strong relationship, with adjusted HR, 3.19 (95% CI 1.34, 7.58) for breast cancer. The present study suggests that patients with early-onset cataracts are at an increased risk of being diagnosed with breast cancer in subsequent years.

PO-37

Increased risk of hepatoma in patients with early-onset cataracts: A nationwide population-based study

利用健保資料庫評估早發性白內障增加罹肝癌風險之研究

何宜豪，蔡宜佑，江鈞綺
中國醫藥大學附設醫院眼科部

Early-onset cataracts are associated with insufficient antioxidative activity, and, therefore, a potential risk of cancer. This study investigated the risk of hepatoma after being diagnosed with early-onset cataracts. Retrospective claims data from the Taiwan National Health Insurance Research Database were analyzed. Study subjects were comprised of patients with early-onset cataracts, aged 20-55 years (International Classification of Diseases, 9th Revision, Clinical Modification [ICD-9-CM] code 366.00, 366.01, 366.02, 366.03, 366.04, 366.09, 366.17 and 366.18) and newly diagnosed between 1997 and 2010 (n = 1281), and a comparison cohort without the disease (n = 5124). Both cohorts were followed up until 2010 to estimate the incidences of hepatoma. We used the Poisson regression model to compare incidence rate ratios and the 95% confidence interval (CI). Cox proportional hazards regression was used to assess the hazard ratio (HR) of hepatoma associated with early-onset cataracts. The site-specific analysis also showed a strong relationship, with adjusted HR, 3.29 (95% CI 1.16, 9.31) for hepatoma. The present study suggests that patients with early-onset cataracts are at an increased risk of being diagnosed with hepatoma in subsequent years.

Neuro-Ophthalmology

PO-38

Recurrent amaurosis fugax in a 5 year old girl-a case report

反覆性黑矇在五歲女孩的表現 - 病例報告

陳達慶，吳立理
台大醫院 眼科部

Purpose: To report a 5 year old case with recurrent amaurosis fugax
Methods: case report
Results: A 5 year old girl with idiopathic amblyopia in left eye noticed recurrent episodes of black out during occlusion therapy. The black out last for 15 to 60 minutes and is not preceded or followed by headache.It attacks about 2~3 times per week. On examination, best corrected visual acuity of left eye was 0.7, there was no conjunctival injection or corneal edema, anterior chamber was deep and clear. Fundus exam revealed optic disc edema with diffuse arterial thinning. Blood test showed normal hemogram and no hypercoagulability nor hypercholestrolnemia. The OCT and visual field results were inconclusive. The vascular duplex of bilateral ophthalmic artery is normal, EEG showed borderline 14 and 6 cps positive spikes. Under the impression of suspected atypical migrane, Sebelium 5mg per day was prescribed and the patient report decreased frequency of black outs.
Conclusions: Atypical migraine can presented as amblyopia and recurrent episodes of amaurosis fugax in children.

PO-39

A case of giant suprasella aneurysm with bitemporal hemianopia

以雙顳側偏盲呈現之巨型蝶鞍部血管瘤之病例報告

徐浩恩，陳彥廷，黃俊峰，周介仁
彰化基督教醫院眼科部

Purpose: A rare case of giant suprasella aneurysm with bitemporal hemianopia
Methods: case report
Results: This 50 year-old female was healthy before without systemic disease. She complained of aggregating blurred vision of right eye since 6 months ago without accompanied symptom such as pain of eye, headache, or numbness of face.

Her corrected vision was 40/200 of right eye and 20/20 of left eye. The right optic disc was pale but disc-cupping ratio was normal (0.3x0.3) without edema or hemorrhage. 10-2 visual field showed bitemporal hemianopia which was more distinct in right eye. Pituitary tumor with compression to optic chiasm was suspect. Brain MRI (Magnetic resonance imaging) revealed one well-defined giant suprasellar mass (2.1x2.0x1.8cm in size) with strong contrast media enhancement. Cavernous giant aneurysm with compression of optic chiasm was highly suspected. Further CTA (computed tomographic angiogram) showed a giant irregular saccular right distal ICA

(internal carotid artery) wide neck aneurysm, which dome projects midline medially (about 25mm in its

Endovascular embolization was performed with metal coil. One month later, followed brain CT showed well embolized lesion without rupture or intracranial hemorrhage. But visual acuity was still not recovered.

Conclusions: We reported one unusual case of giant saccular ICA aneurysm with compression of optic chiasm leading to bitemporal hemianopia and poor vision, who received endovascular embolization with satisfactory outcome.

PO-40

Multifactorial nutritional optic neuropathy: A case report

多重因素導致之營養缺乏性視神經病變：病例報告

梁巧盈 *，鄭慧敏，沈應誠，王俊元，沈秉衡

台中榮民總醫院 眼科部

Purpose: To report a case of nutritional optic neuropathy associated with multiple aggravating factors.

Methods: Case Report.

Results: A 49-year-old man with a 2-year history of bilateral progressive visual loss, which aggravated rapidly for 2 months, was found to have a bilateral retrobulbar optic neuropathy. His presented BCVA was 0.05, OU. The optic disc appeared temporal pallor, and temporal sector optic atrophy was confirmed by OCT. The Humphrey visual field test revealed generalized decreased sensitivity with cecocentral scotoma. His serum vitamin B12 and folic acid concentration were decreased. The patient ever received partial gastrectomy twice in his early twenties due to perforated gastric ulcer. He had a history of moderate alcohol intake (300ml of Whisky) and moderate tobacco use (1.5 PPD) for over 20 years. However, he had markedly increased alcohol intake for 2 months, trying to ease the pain of traumatized tibia fracture. After treatment with B12 IM injection, oral B complex, oral folic acid, analgesics, with change in his tobacco and alcohol use, the patient's BCVA returned to 0.3, OU.

Conclusions: This case demonstrated the multifactorial neutritional optic neuropathy which related to pernicious anemia and tobacco-alcohol amblyopia. Nutritional support and life style modification are the keys for successful treatment.

PO-41

A case of recurrent bilateral maurosis fugax due to monoclonal gammopathy of undetermined significance (MGUS)

以反覆性雙側暫時性視力模糊呈現之單株免疫球蛋白增高之病例報告

陳加宇，鄭捷尹，李昆憲，周介仁

彰化基督教醫院眼科部

Purpose: to report a case of monoclonal gammopathy of undetermined significance (MGUS) presented with multiple episodes of bilateral transient obscuration of vision.

Methods: case report

Results: A 55-year-old male was referred for evaluation of transient decreased vision in both eyes. In our OPD, ocular examination revealed no emboli in retinal vessels. The patient's protein electrophoresis showed monoclonal gammopathy, a M protein at middle γ-region and the Immuno-fixative elctrophoresis (IFE) presented with Monoclonal gammopathy;IgG Kappa type. No definite osteolytic lesion can be identified by bone survey. Only mild asymmetrical hypertrophic change of the left orbital extraconal inferior rectal muscle was noted in orbital CT. He was diagnosed as monoclonal gammopathy of undetermined significance by clinical diagnosis criteria.

Conclusions: Monoclonal gammopathy is difficult to diagnose and may lead to transient blurred visual. We reported one unusual case of monoclonal gammopathy of undetermined significance (MGUS) presented with transient blurred vision.

PO-42

Sinonasal carcinoma presenting as chronic sinusitis and sequential bilateral visual loss- a case report

鼻竇上皮癌以慢性鼻竇炎表現並引發雙側視力喪失 - 病例報告

姜威宇，黃修眉

高雄長庚紀念醫院

Purpose: To describe a case of bilateral visual loss, related with sinonasal carcinoma

Methods: Case report with history, clinical features and treatment course

Results: A 75-year-old female without systemic disease initially presented as bilateral chronic sinusitis; however, visual loss in one eye followed by the other. Sinusectomy revealed the pathology of undifferentiated carcinoma. However, mega-dose steroid (Methylprednisolone 250mg Q6H for 5 days) and sinusectomy did not improve visual acuity.

Conclusions: Sinonasal carcinoma presenting as chronic sinusitis and sequential bilateral visual loss is rare. In chronic sinusitis with visual impairment, aggressive evaluation for etiology, in addition to infection, should include malignancy. In our experience, initial poor visual acuity may lead to poor prognosis after mega-

dose steroid and surgery treatment.

PO-43

Benign episodic unilateral mydriasis – A Case report

良性偶發的單側散瞳 - 病例報告

吳鴻哲，奚義華
彰化秀傳紀念醫院 眼科部

Purpose: To present a rare case of Benign episodic unilateral mydriasis.
Methods: Case report
Results: We report a case of benign episodic unilateral mydriasis diagnosed in a 42-year-old lady with a history of migraine who had extensive negative neurological evaluation.
Conclusions: Pupil asymmetry is an alarm signal for severe underlying neurological disorders like brain tumors, aneurysms and hernia of the uncus. But it can also be a normal finding in about 20% of cases. Therefore, present history and physical and neurologic examination should detailed exam.

PO-44

Pseudotumor cerebri – two cases report

假性腦瘤 – 病例報告

程識霖，林睦秋，許淑娟
高雄榮民總醫院 眼科部

Purpose: To report two cases of pseudotumor cerebri
Methods: Cases report and literature review
Results: Two female patients presented with blurred vision and binocular diplopia respectively with intermittent headache. They denied any systemic disease before. On examination, the best corrected visual acuity was 6/6, OD; 6/10, OS in one patient and 6/6, OU in the other. Fundus examination revealed some flame-shaped retinal hemorrhage around optic disc, tortuous retinal vein and bilateral optic disc edema in both patients. The laboratory work up showed normal results. Humphrey perimetry showed enlarged blind spot in both eyes of both patients. The brain and orbital magnetic resonance imaging (MRI) showed unremarkable finding. Lumbar puncture showed normal cerebrospinal fluid (CSF) analysis except high opening pressure (260 mmH_2O and 400 mmH_2O, respectively). Under the impression of pseudotumor cerebri, oral acetazolamide was prescribed and weight reduction was suggested. After two and one months oral acetazolamide treatment respectively, the two patients got symptomatic improvement accompanied with resolution of bilateral optic disc edema.
Conclusion: Pseudotumor cerebri is a not as common in Taiwanese as in Caucasian. However, the clinical appearance and a negative neuroimage survey, together with a high opening pressure of lumbar puncture and normal CSF content drew the conclusion to the diagnosis. This disease usually occurs in obese middle-aged women with a BMI over 32, however, these two patients' BMI were 26.3 and 26.6 respectively. Although they are not truly obese, weight reduction was suggested and the oral acetazolamide yielded good result in these patients without significant complications.

PO-45

Pituitary macroadenoma combined with age related macular degeneration – case report

腦下垂體巨腺瘤合併老年性黃斑部病變 – 病例報告

陳韻全，粘展瑋
彰化秀傳紀念醫院 眼科部

Purpose: To report a case of pituitary macroadenoma combined with age related macular degeneration.
Methods: Case report.
Results: A 74-year-old female presented with progress blurred vision in both eye for 5 years. She first had intravitreous injection of anti-VEGF medications for wet type age related macular degeneration in other center. However, progress blurred vision persisted and she came to our outpatient clinic. The visual acuity were 0.1 OD and 0.02 OS. The visual field showed pool reliability because of the poor visual acuity. Dilated fundus examination revealed obscure wedge pale of disc. MRI showed pituitary macroadenoma involves the pituitary fossa and extend into the sphenoid sinus.
Conclusions: Although the pituitary macroadenoma is the most common nonfunctional adenoma and symptoms typically present in the eye. It' ll be easy to neglect if coexist with maculopathy.

PO-46

Ocular manifestation as presenting signs of probable metastatic hepatocellular carcinoma

以眼部表現為初徵灶之疑似轉移性肝細胞惡性腫瘤

薛維禎，馮介凡，高啟祥
國立臺灣大學醫學院附設醫院新竹分院

Purpose: To report a case of pathological fracture with ocular manifestation of complete ptosis and blurred vision that result from probable metastatic hepatocellular carcinoma.
Methods: Case-report

Results: We describe a case of insidious and progressive dizziness, ptosis and blurred vision in his right eye for half a year without significant ocular or head injury history. He laid in bed due to lumbar compressive fracture for years. On visiting, extremely low visual acuity, ptosis, fixed and mid-dilatated pupil, nearly total paralyzed extraocular muscle function with silent anterior and posterior segment condition were presented. Recent brain computer tomography demonstrated right optic canal bony destruction with mass effect that was not mentioned in previous report. Under suspicion of pathological fracture, the visiting staff re-conducted a variety of comprehensive studies aimed at occult systemic infection and/or malignancies and, thus, opened the Pandora's box.
Conclusions: Insidious ocular manifestations caused by optic canal pathological fracture may result from a variety of causes which include osteogenic/ osteoclastic disorders, infection, primary bone tumor or secondary metastatic malignancies. Detailed history taking and image study are important to make a right diagnosis.

PO-47

Osteoid osteoma related retrobulbar optic neuropathy

骨樣骨瘤造成球後視神經病變

林耿弘，李欣濃，王璟煜，鄭慧敏，洪毓謙，鄭元韶，梁巧盈
台中榮民總醫院 眼科部

Purpose: To report a case of osteoid osteoma related retrobulbar optic neuropathy.
Methods: Case report.
Results: One 51 year-old male patient complained sudden loss of vision in his left eye after severe cough. After 3 hours, he visited our ER and received anterior chamber paracentesis and intravenous mannitol injection under the diagnosis of suspected central retinal artery occlusion. But there was no evidence of central retinal artery occlusion such as cherry red spot. He also denied the history of cardiovascular disease, diabetes mellitus or hyperlipidemia. After all emergent intraocular pressure-lowering treatment, the vision in his left eye was still no light perception. Because he denied any systemic problem except fullness over his left periocular and frontal area, the ENT physician suggested head MRI evaluation at OPD. The MRI study revealed a homogeneous mass surrounded his left optic nerve just behind optic canal. He received endoscopic surgery by ENT physician and the pathologic result showed osteoid osteoma. His vision in his left eye was still no light perception and optic disc became pale after 2 months later.
Conclusions: Osteoid osteoma could be one of possible factors of retrobulbar optic neuropathy. Head and orbital images evaluation should be considered for patients who deny systemic risk factors of vascular occlusion.

Ocular Plastic

PO-48

Eyeball Rupture and Orbital Fracture Corrected with Bioceramic Orbital Implant and Pre-fabricated Titanium Orbital Implant

以 bioceremic orbital implant 和 prefabricated orbital implant 治療外傷性眼球破裂和眼眶骨折

沈筠惇，林億倫，王柏方，林怡嬋，許紋銘
臺北醫學大學雙和醫院 眼科

Purpose: To report a case of traumatic facial injury with Le Forte Level III combined with bilateral type III nasoethmoidal fracture, orbital floor and eyeball rupture.
Case report：A 15-year-old female presented to our emergency department with traumatic facial injury to the left side. Initial CT findings showed severe depression fractures involving the anterior skull-base and facial bones with Le Forte Level III fracture and bilateral type III nasoethmoidal (NOE) open fracture (bilateral orbial walls, left zygomatic arch, walls of frontal sinuses, left maxillary sinus walls, medial wall of right maxillary sinus, walls of ethmoid sinuses, nasal bone, bony nasal septum, bilateral pterygoid plates, bilateral styloid processes). Left eyeball rupture with hematoma formation and leakage of the cerebrospinal fluid from the anterior skull-base. The patient received repair of the orbital floor with pre-fabricated titanium plate (OS), eyeball evisceration (OS), orbital reconstruction with bioceramic ball, bilateral NOE fracture reduction and transnasal wiring, left zygoma and malar fracture open reduction and fixation.
Conclusion: The treatment of Le Fort Level III combined with bilateral type III NOE fracture poses a difficult challenge especially if eyeball rupture needs to be repaired during the initial operation. The bioceramic orbital implant was successfully implanted and no complications have been encountered since. Facial trauma remains a crucial challenge for oculoplastic and reconstructive surgeons as facial deformities resulting from a severe trauma to the face are very difficult to correct.

PO-49

Ophthalmic plastic surgery in Taiwan

台灣眼整形手術之現況

許祺鑫 (Chi-Hsin Hsu), 林怡嬋，沈筠惇，許紋銘
臺北醫學大學雙和醫院 眼科

Purpose: The purpose of this article is to report the current status of ophthalmic plastic surgery in Taiwan.
Methods: The data were collected from opened information of BNHI Taiwan, Statistics Yearbook of Practicing Physicians and Health Care Organizations in Taiwan (2002-2012),Centers of Medicare and Medicaid Service, USA.
Results: The operation fee of oculo-plastic surgery is relatively low. Aesthetic surgeries performed by ophthalmologists are relatively low. Major oculoplastic surgeries and orbital surgeries can be performed properly and adequately.
Conclusions: The manpower and training of oculoplastic surgeons in Taiwan are enough. Ophthalmologists should promote the concept that eye doctors are the first choice in many surgeons for patients who look for the peri-ocular plastic and aesthetic surgeries. More education courses on oculoplastic and cosmetic surgery should be provided for ophthalmologists.

PO-50

A huge skull base meningioma induced proptosis and visual loss – a case report

巨大顱底腦膜瘤引起突眼及視力喪失－病例報告

宋建和，賴麗卿，許紘睿
彰化秀傳紀念醫院 眼科部

Purpose: To report a case of huge skull base meningioma first diagnosis in ophthalmology clinic.
Methods: Case report.
Results: A 93 year-old male visited our ophthalmology outpatient department with progress pain, redness and loss of vision in the left eye for 1 year. He didn't have headache, limb weakness and verbal difficult. The visual acuity was light perception negative. The intraocular pressure was 7 mmHg OD and 19 mmHg OS. Clinical examination showed conjunctival chemosis with erosion, totally ophthalmoplegia in the left eye. The brain MRI reveal a 65 x 43 mm lobulated and enhance skull base meningioma with extracranial and intracranial extensions.
Conclusions: A large tumors can cause symptoms like headache, focal seizure and progressive weakness over limbs. We report a case of huge skull base meningioma with only focal symptoms in the eye first diagnosis in ophthalmology clinic..

PO-51

Lung Adenocarcinoma Metastatic to the Eyelid Simulating A Chalazion

型態相似霰粒腫的肺腺癌轉移眼皮之病例報告

魏利真，劉順枝，沈應成，王俊元，詹以吉
台中榮民總醫院 眼科部

Purpose: To describe a rare case of lung adenocarcinoma with eyelid metastasis.
Methods: We presented the case with a lid mass of lung adenocarcinoma metastasis. The clinical presentations and pathological findings of eyelid metastasis were also reviewed.
Results: A 53-year-old man presented with a 3-week history of progressive enlargement of a nodule over the left lower eyelid. Chalazion was suspected at a local clinic. The patient visited our clinic, and shaving biopsy of the mass was done. Tracing back his history, he had lung adenocarcinoma for 2 years and bone metastasis was noted for recent months. He continued to receive immunotherapy. The residual eyelid tumor remains stable and the patient lives well 6 months after notice of eyelid metastasis.
Conclusions: Metastatic tumor to the eyelid can masquerade as a chalazion. Eyelid metastasis can display a variety of clinical features and should be considered in patients with known systemic cancer.

Orbit

PO-52

An early rhino-orbito-cerebral mucormycosis presented with ophthalmic artery occlusion and complete ophthalmoplegia

一例以眼動脈阻塞及眼肌麻痺為表現的早期鼻 - 眼窩 - 大腦白黴菌病

畢勇賢，曾垂鍊，許淑娟
高雄榮民總醫院眼科部

Purpose: To report an unusual case of early rhino-orbito-cerebral mucormycosis presented with ophthalmic artery occlusion and complete ophthalmoplegia
Methods: Case report and literature review
Results: A 70-year-old woman with poorly controlled diabetes developed headache, right eye proptosis, ptosis and blurred vision for five days. Ophthalmic examination demonstrated proptosis, afferent pupillary defect, complete ophthalmoplegia and cherry red spot in right eye. Absence of retinal artery filling with lack of choroidal perfusion OD was observed by fluorescein angiography. Orbital MRI showed right sphenoid and maxillary sinusitis associated with ill-defined enhancement over right retrobulbar and right cavernous sinus regions. Biopsy of the right maxillary sinus and orbit confirmed the diagnosis of mucormycosis, and the patient was subsequently treated by systemic anti-fungal agent.
Conclusion: Rhino-orbital-cerebral mucormycosis is a rare but life threatening infection that generally occurs

in patients with diabetes mellitus or other immune deficiency. It may cause complete ophthalmoplegia and ophthalmic artery occlusion in a short time. Early diagnosis and aggressive treatment are essential to reduce mortality and improve outcome.

PO-53

IgG4-related disease in orbital retrobulbar mass with compressive optic neuropathy – Case Report

IgG4 相關疾病在眼窩球後腫塊合併壓迫性視神經病變之個案報告

胡佩欣 *, 周介仁 , 陳珊霓
彰化基督教醫院 眼科部

Purpose: To report a case of IgG4-related disease in orbital retrobulbar mass with compressive optic neuropathy.
Method: Case report.
Result: A 63-year-old man presented with painless, progressed proptosis in his right eye for 3 months. Binocular diplopia and blurred vision of his right eye developed for 2 weeks. Ocular examination showed an relative afferent pupil defect and extra-ocular movement limitation of his right eye. Best-corrected right visual acuity was 0.3. Orbital CT scan showed an irrgular medial retrobulbar mass with optic nerve and medial rectus muscle involvement. Tissue biopsy was performed via functional endoscopic sinus surgery. Histopathologic study disclosed marked lymphoplasmacytic, eosinophilic, and neutrophilic infiltrate within sclerotic stroma. Immunohistochemical stain revealed positive IgG4 staining in the plasma cell consistent with IgG4 related sclerosing disease. Serum IgG4 level was 612 mg/dL (normal range 3-201 mg/dL). Best-corrected right visual acuity returned to 1.0 after oral prednisolone treatment.
Conclusion: IgG4 related disease is a recently recongnized inflammatory lesions frequently involving multi-organs. Since maligmant tumor are frequently suspected on initial presentation of irregualr retrobulbar orbital mass, IgG4 related disease should be considered in the differential diagnosis.

PO-54

Treatments for fulminant orbital lymphangioma – a case report

破裂後之眼窩淋巴管瘤的治療—病例報告

陳禾旼 , 蔡悅如 , 趙安年 , 黃浩輝
林口長庚紀念醫院 眼科部

Purpose: To report the treatment course and result of right eye lymphangioma with massive intralesional hemorrhage.
Methods: Case report.
Results: A 2-year-old girl presented progressive proptosis with periorbital swelling and purpura of her right eye and received anterior orbitotomy initially for pathological diagnosis before visiting our hospital. The pathological report revealed fibroadipose tissue with dilated vasculolymphatic ducts. The proptosis improved for 2 days, but got aggravated soon. Severe proptosis with exposure keratitis were noted. Followed MRI image demonstrated that the right eyeball was stretched to acute angle with choroidal thickening, and multiple lymphatic spaces inside the orbit. Shallow retinal detachment with choroidal detatchment was also noted by Retcam. Marcus Gunn pupil was also seen in her right eye. Sclerosing therapy with intra-lesion Bleomycin (10mg/7mL) injection was performed for two times. Along with conservative wet-chamber therapy for exposure keratopathy, five months later the proptosis of right eye almost disappeared.
Conclusion: Orbital lymphangioma is a challenging disease and difficult to treat, with potential visual complication. The diagnosis could be confirmed by MRI, and prevents the huge postoperative hemorrhage sequelae. Sclerosing therapy is an effective and rather safe treatment for orbital lymphagioma.

PO-55

Rosai–Dorfman disease presented with orbital tumor and parotid lymphadenopathy: A case report

以眼窩腫瘤及腮腺淋巴腫大表現之 Rosai–Dorfman 病案例報告

廖述朗 , 吳廷郁
國立台灣大學醫學院附設醫院 眼科部

Purpose: To report a case of Rosai–Dorfman disease presented with orbital tumor and parotid lymphadenopathy
Methods: A case report
Results: A 21 years old woman without systemic disease. A palpable mass on left temporal upper area and persisted 2 months later even after treatment at local clinics. She then received tumor excision at the temporal upper orbit. The brownish and soft tumor measured 1x1x1.5 cm in size and microscopically, it shows aggregates of lymphoplasma cells and macrophages with pale to eosinophilic cytoplasm. The latter displays emperipolesis of inflammatory cells, erythrocytes and nuclear dusts and S-100 immunoreactivity, indicating Rosai–Dorfman disease. Left parotid tumor, 1cm in size, was also found. Fine needle aspiration was done and showed negative for

malignant cell in cytology, suggested lymphadenopathy.
Conclusions: Rosai-Dorfman disease of the orbit is a rare disease but should be considered in young individuals, especially with chronic proptosis or orbital masses with/without painless lymphadenopathy. A biopsy will help confirm the diagnosis.

PO-56

Mycosis fungoides on the eyelid: a case report

病例報告：眼瞼上蕈狀肉芽腫

賴俊杰
成功大學附設醫院 眼科部

Purpose: To present a case of mycosis fungoides on the eyelid.
Methods: Case report.
Results: A 35-year-old woman presented to the ophthalmology department with a tiny red lesion on the nasal side of her left eyelid, which had been noted for about half a year. On examination, the lesion with a diameter of approximately 1 mm in diameter was flat without any involvement of the orbit and eyeball. She underwent excisional biopsy and the histopathological examination confirmed the diagnosis of mycosis fungoides. Then she was referred to dermatologists for further management.
Conclusions: Mycosis fungoides, the most common type of cutaneous T-cell lymphoma, is a systemic malignant condition which generally affects the skin but rarely involves the ocular area. Diagnosis is sometimes difficult because the early phases of the disease may resemble eczema or psoriasis. A tiny eyelid lesion, even though it is extremely rare, should be considered the possibility of a malignant lesion like the mycosis fungoides. Early detection for timely treatment is critical to make the disease go into a non-progressing state, remission, which can last indefinitely.

Refraction

PO-57

Comparison of accommodation and pupil size in myopic children treated with different low concentration atropine eye drop

比較不同低濃度阿托平對於近視兒童之眼調節力及瞳孔大小變化

吳佩昌，方博炯，黃修眉，楊怡慧，陳玨曇
高雄長庚紀念醫院

Purpose: To assess the effects of low concentration of atropine (0.05% verse 0.01%) on objective accommodation, pupil size and photophobia symptom.
Methods: In this prospective comparison study, myopic children were randomized assigned to be treated with 0.05% or 0.01% atropine eye drop each night. Objective accommodation and pupil diameter were measured. Symptom of photophobia was recorded.
Results: There were 12 subjects enrolled in 0.05% atropine group and 17 subjects in 0.01% atropine group. Objective accommodation amplitude was not significant difference in the 0.05% atropine group and the 0.01% atropine group (1.6 ± 1.1D vs. 2.2 ± 1.5D, p=0.27). Photopic diameter was significantly smaller in the 0.01% atropine group than in the 0.05% atropine group (5.7 ± 1.5mm vs. 6.8 ± 0.74, p=0.016). The photophobia symptom in the 0.05% atropine group is borderline higher than the 0.01% atropine group (p=0.05).
Conclusion: These findings suggest that 0.01% atropine has similar effect on the accommodation inhibition, smaller photopic pupil size and lesser photophobia symptom in comparison to 0.05% atropine.

PO-58

Drug-induced acute myopia following relenza treatment

瑞樂沙® 引起之急性近視加深

江尚宜[1]，林世民[1,2]，洪啟庭[2]，呂大文[1]
國防醫學院三軍總醫院眼科部[1]，國軍高雄總醫院眼科部[2]

Purpose: Seasonal influenza is a self-limiting disease in healthy adult. But some people, such as young children, elderly, and patient with concomitant morbidities, are at a higher risk for developing serious flu complications, such as pneumonia, acute endocarditis, heart failure, and even death. Relenza® is the inhalation powder of zanamivir and is widely used to treat influenza in the past years. Zanamivir is a neuraminidase inhibitor used in the treatment and prophylaxis of influenza caused by influenza A & B virus, and it was the first neuraminidase inhibitor commercially developed.
Methods: We report a case of sudden loss of vision due to the development of acute myopia after the intake of Relenza® used for treating influenza.
Results: We describe a 31-year old female presented with large myopic shift from –7.00/-0.25 x 20 right eye, -6.75/-0.25 x178 left eye to –12.00/-0.50 x5 right eye, -10.75/-0.75 x120 left eye. Conjunctival chemosis, periocular edema and dark circle, skin rashes over trunk and extremities were also noted. Relenza® treatment had been commenced for influenza treatment 1 day prior to the onset of her symptoms. The patient was advised to discontinue Relenza® and was treated with anti-histamine and corticosteroid, and the symptoms recovered 5 days later. All these findings were reversed completely once the drug was discontinued.

Conclusion: Development of acute myopia should be kept in mind as an adverse effect of a commonly used in treatment of infections caused by influenza A& B virus, namely Relenza®.

Refractive Surgery

PO-59

Rare Complication of Flap Dislocation During Femtosecond Laser-Assisted In Situ Keratomileusis And Its Management: Case Report

一個「飛秒雷射的屈光手術中罕見併發角膜瓣脫位及其處理方法」的病歷報告

吳政修，孫啟欽

林口長庚醫院，基隆長庚醫院

Purpose: To report a case with rare complication of flap dislocation during Femtosecond Laser-Assisted In Situ Keratomileusis (iLASIK) and its management.
Case presentation: A 41-year-old woman with a history of high myopia (OD: 1.0x-9.50/-2.00x175 OS: 1.0-13.00/-1.75x0) had Femtosecond Laser-Assisted In Situ Keratomileusis for both eyes on 2013/4/1. Flap dislocation occurred during operation. Reviewing surgical video, we noted a small tear at the temporal side of hinge. The flap dislocated along the tear during irrigation. The flap was found on the surgical drapes and put back to original position along the surgical mark.
Results: During follow up, the patient' s flap is stable due to stability of 110 degree sidecut angle created by iLASIK. Her best corrected visual acuity was 20/20 for both eyes.
Conclusions: Flap dislocation can be managed with calm and won't cause long-term complication.

PO-60

The surgical outcome of cataract surgery performed with LenSx: follow up to 1 year

飛秒雷射輔助白內障手術：追蹤 1 年術後結果

林浤裕，尤誌君，官珮慈

彰化秀傳紀念醫院 眼科部

Purpose: Present surgical outcome of femtosecond laser-assisted cataract surgery for 1 year.
Methods: Collect postoperative outcomes of patients who underwent femtosecond laser-assisted cataract surgery (with Alcon-LenSx Inc.,Aliso Viejo,CA) since December, 2012.
Age of patient, the grading of lens opacities (using Lens Opacities classification LOCSIII) were recorded preoperatively. Postoperative visual acuity, intraocular pressure and refractive parameters were collected. The longest postoperative follow-up period up to 1 year.
Results: Visual acuity showed no significant change since 6 months compared to 1 year. Except two Patients who had glaucoma history experienced elevated intraocular pressure for about 1 month. No severe postoperative complications as retinal detachment developed.
Conclusions: Femtosecond laser-assisted cataract surgery showed safe and stable postoperative outcomes according to our study. Preoperative selection of adequate candidate might play an important role.

Retina & Vitreous

PO-61

The late development of branch retinal vein occlusion – related rare complication: tractional retinal detachment : a case repot

病例報告：分枝視網膜靜脈阻塞後晚期造成的併發症：牽扯性視網膜剝離

陳韻如

亞東紀念醫院 眼科

Purpose: To report a case of long-standing branch retinal vein occlusion (BRVO) with acute exacerbation of pre-existing neovascular fibrovascular membranes, leading to tractional retinal detachment (TRD) after fluorescein angiography (FAG) examination
Methods: Case report
Results: Case report: This 48-year-old male patient has past history of hypertension under medical control. He noticed blurred vision in left eye for more than 5 years. On ophthalmic exam, epiretinal membranes over lower arcade with macular extension and mild traction in left eye were found. There seemed no active neovascular proliferation over the membranes. His visual acuity in left eye was only 0.16. We performed FAG exam and the result showed multiple neovascular leakages over the lower arcade. After 3 months, the patient' s visual acuity deteriorated to 0.05(os) and the fundus showed active fibrovascular proliferation with macular tractional detachment and wrinkling. So we performed pars plana vitrectomy, membranes peeling and IVI of C3F8 for him. After operation, his vision improved to 0.1 and his macular area reattached.
Conclusions: BRVO-related vision-threatening complications are not uncommon. However, the late development of TRD due to exacerbation of previous fibrovascular membrane is rare. In this case, the TRD developed after performance of FAG exam, apart from the initial BRVO event for years. The activation of previously stable fibrovascular membranes may be

due to the new neovascular formation. The relationship between fluorescein reperfusion and neovascular membrane progression may need more studies for delineation.

PO-62

Management of idiopathic retinal vasculitis, arteriolar macroaneurysms and neuroretinitis – a case report

特發性視網膜血管炎，動脈性大血管瘤及神經性視網膜炎處置之案例報告

葉伯廷，郭柏邑
台大眼科部

Purpose: To report a case of idiopathic retinal vasculitis, arteriolar macroaneurysms and neuroretinitis
Methods: case report
Results: A 62-year-old man with irregular control of hypertension presented with blurred vision of left eye for 1 year initially. Intraocular pressure over 50 mmHg in his left eye was noted in May, 2013. Meanwhile, his visual acuity was down to counting fingers and rubeosis iridis was documented Neovascular glaucoma was impressed accordingly. Color fundus and fluorescence angiography displayed multiple macroaneurysms along the arterioles, broad non-perfusion area at peripheral retina, multifocal retinal neovascularization, lipid leakage around the aneurysm and mild neuroretinitis. According to the staging system, stage V idiopathic retinal vasculitis, arteriolar macroaneurysms and neuroretinitis (IRVAN) was diagnosed. Intravitreal injection of bevacizumab twice and subsequent trabeculectomy were done for neovascular glaucoma and he also received complete pan-retinal photocoagulation. His current visual acuity of left eye was 20/1000.
Conclusions: The diagnosis of IRVAN is based on a constellation of clinical features. Multiple macroaneurysms, peripheral non-perfusion retinal capillary were typical presentation in fluorescein angiography and neovascular glaucoma might develop at late stage. Administration of anti-VEGF drugs, trabeculectomy and panretinal photocoagulation, were effective to control IRVAN. Although it was believed to be benign self-limiting condition initially, it may cause severe visual loss at late stage of IRVAN.

PO-63

Endophthalmitis – 12-Year Experience in Southern Taiwan

眼內炎在南台灣 12 年的經驗

陳世洲，許淑娟
高雄榮民總醫院 眼科部

Purpose: Endophthalmitis is a sight-threatening disease of severe intraocular infection. Delayed diagnosis and treatment may lead to irreversible visual loss. Here we report our 12-year experience of endophthalmitis at a tertiary referral center in southern Taiwan.
Method: A retrospective chart review study
Results: Patients diagnosed as endophthalmitis from January 2002 to August 2013 at Veterans General Hospital, Kaohsiung, Taiwan were included, and corneal ulcer related endophtahlmitis was excluded. In the included 326 patients, 86 patients were endogenous endophthalmitis and 240 patients were exogenous endophthalmitis. In endogenous endophthalmitis patients, mean age was 61.13 ± 14.13 years and diabetes mellitus was the major underlying disease. Liver abscess was the major infection source (36 patients, 41.9%). Culture of aqueous or vitreous was positive in 28 patients (34.1%), and Klebsiella pneumoniae was the major pathogen. The interval between the diagnosis of systemic infection and endophthalmitis was 5.55 ± 14.80 days (0–120 days). In exogenous endophthalmitis patients, mean age was 63.68 ± 19.42 years and hypertension was the major underlying disease. Operation was the major cause of infection (199 patients, 82.9%). Culture of aqueous or vitreous was positive in 90 patients (37.5%), and Staphylococcus epidermidis was the major pathogen. The interval between the initial eye symptoms to treatment was 14.65 ± 64.70 days (0–700 days).
Conclusion: The presentation, clinical course, and visual prognosis of endogenous endophthalmitis and exogenous endophthalmitis were quite variable due to different etiology. Early diagnosis and treatment were crucial in the management of endophthalmitis.

PO-64

Hydroxychloroquine maculopathy in a patient with retinitis pigmentosa

Hydroxychloroquine 黃斑部病變在色素性視網膜炎病患

莊智鈞[1,2,3]，陳珊霓[1]
彰化基督教醫院眼科[1] 員生醫院眼科[2] 中山醫學大學醫學研究所[3]

Purpose: To report one case of hydroxychloroquine maculopathy in a patient with retinitis pigmentosa.
Methods: Interventional case report
Results: A 45 year-old woman was presented with blurred vision, especially at night, in both eyes for years. She had systemic lupus erythematosus under hydroxychloroquine treatment for more than ten years. Her family history was grandmother and aunt had retinitis pigmentosa. Her best corrected visual acuity was 0.7 in both eyes. She had a quiet anterior segment in

both eyes. The intraocular pressure was below 20 mmHg in both eyes. Fundus examination showed bull' s eye maculopathy in both eyes. The optical coherence tomography showed diffused outer retinal thinning and residual subfoveal IS-OS only in both eyes. The Humphrey visual field 10-2 showed central ring-shaped scotoma in both eyes. The electroretinography showed decreased and delayed rod and cone response in both eyes. Under the impression of hydroxychloroquine maculopathy in a patient with retinitis pigmentosa, she stopped taking the hydroxychloroquine immediately.
Conclusions: Hydroxychloroquine could cause severe maculopathy in a patient with retinitis pigmentosa.

PO-65

Acquired immunodeficiency syndromes-related endophthalmitis: A Case Report

愛滋病相關之眼內炎 - 病例報告

郭淑純 , 李孟昇 , 彭凱鈴 , 魏福宗
奇美醫學中心永康院區 眼科部

Purpose: Due to immunocompromised status, the acquired immunodeficiency syndrome (AIDS) patients get many opportunistic infections. Careful history taking plays an important role in the patients under the impression of immunocompromised status. Herein, we described a case of AIDS with blurred vision in his left eye as first manifestation before definite diagnosis
Methods: Case report
Results: This 31-year-old man denied systemic disease got blurred vision in his left eye. Series examines showed dirty vitreous opacity with snowballs. Complicated sexual exposure was noted by careful history taking, and then he was proved to be infected with syphilis and CMV due to AIDS.
Conclusions: Most of the time, we are consulted by the infectious disease doctors for eye condition assessment of AIDS patients. But sometimes we could be the first line doctors who diagnose AIDS patients due to the eye condition.

PO-66

Optic coherence tomography findings of myelinated retinal nerve fiber layer and branch retinal artery occlusion: A Case Series

髓鞘化視神經與視網膜分支動脈阻塞在光學同調斷層掃描下的表現 - 系列病例報告

郭淑純 , 李孟昇 , 林主國 , 張昱欣
奇美醫學中心永康院區眼科部

Purpose: Myelinated retinal nerve fiber layer (RNFL) is often an incidental finding on ophthalmoscopic exam. The symptoms of branch retinal artery occlusion (BRVO) vary from asymptomatic to visual loss or visual field defect. Sometimes myelinated RNFL and BRAO are erroneously diagnosed as each other, leading to delayed treatment or unnecessary anxiety. Herein, we describe the optic coherence tomography (OCT) findings of these two disease in 4 eyes.
Methods: Case series
Results: 2 cases of myelinated RNFL and 2 cases of BRAO were evaluated with OCT. The thickening of myelinated RNFL cases was confined to one third of inner retina where RNFL located while the thickening of BRAO cases was noted more than one half of inner retina.
Conclusions: OCT offers a simple, non-invasive, and rapid clue of differential diagnosis by high resolution of detail image of myelinated RNFL and BRVO.

PO-67

Short-term efficacy of intravitreal ranibizumab for treating diabetic macular edema

玻璃體內注射樂舒晴治療糖尿病性黃斑部水腫之短期效果

簡毓嫻 [1], 劉耀臨 [1], 陳韻如 [1], 陳芳婷 [1], 張珮瑤 [1], 王嘉康 [1], 楊長豪 [2]
亞東紀念醫院眼科 [1], 台大醫院眼科 [2]

Purpose: To investigate the short-term efficacy of intravitreal ranibizumab in patients with diabetic macular edema (DME)
Methods: This is a retrospective case series. From March 2013 to July 2013, patients with diabetic macular edema were enrolled, diagnosed by fluorescein angiography showing active macular leakage as ETDRS criteria, but no macular infarction. Spectral-domain optical coherence tomography (SD-OCT, RTVue, Optovue, USA) demonstrated central foveal thickness (CFT) > 300 um with either cystoid change, serous macular detachment, and diffuse thickening. The patients received 0.5 mg of intravitreal ranibizumab (64 eyes of 49 patients) monthly for 3 months in Far Eastern Memorial Hospital. Primary outcome measures included changes in best-corrected visual acuity (BCVA) and CFT determined by SD-OCT 1 month after 3 injections. Complications after the injections were recorded. The pre-injection and post-injection difference was compared using paired t-test.
Results: The CFT reduced and BCVA improved significantly 1 month after 3 injections ($p < 0.05$). There were no eyes with elevated intraocular pressure, retinal detachment, and infectious endophthalmitis.
Conclusions: Intravitreal ranibizumab was effective and well tolerated in treating DME.

PO-68

Bilateral sequential central retinal vein occlusion followed by acute gastrointestinal bleeding in a renal failure patient

腎衰竭病人在急性腸胃道出血後併發雙眼中心網膜靜脈阻塞

吳建昇，朱炤廉
埔里基督教醫院

Purpose: To report a renal failure patient who developed bilateral sequential central retinal vein occlusion (CRVO) after acute gastrointestinal bleeding.
Method: Case report.
Result: A 76-year-old woman presented with blurred vision OU after acute gastrointestinal bleeding post colon polypectomy. She had chronic renal failure under hemodialysis and coronary artery disease. The best-corrected visual acuity (BCVA) were 6/15 OD and 6/60 OS. Fundoscopy revealed dilated and tortuous retinal vein OU, few blot retinal hemorrhage OD, diffuse flame-shape retinal hemorrhage, and macular edema OS. Intravitreal triamcinolone acetonide (IVTA) injection OS was administered. However, scattered retinal hemorrhage with macular edema OD developed 1 month later. Visual acuity dropped to counting finger and recurrent macular edema OS was also found. IVTA injection OU was performed. Recurrent macular edema OU and neovascular glaucoma OS were noted during follow-up. Panretinal photocoagulation OU was administered. The BCVA were 6/12 OD and NLP OS 1 year later.
Conclusion: Our patient had many predisposing factors of CRVO. We postulated hypoxia, the result of anemia after acute gastrointestinal bleeding, to be a precipitating factor for bilateral CRVO. If patients with risk factors had visual change after acute blood loss, further ocular survey should be considered.

PO-69

Central retinal vein occlusion combined with Cilioretinal artery occlusion and macroaneurysm - a case report

視網膜中心靜脈阻塞合併視網膜睫狀動脈阻塞及視網膜大動脈瘤

沈奕勳
新光吳火獅紀念醫院 眼科

BACKGROUND: Describe the clinical findings and course of central retinal vein occlusion (CRVO) combined with cilioretinal artery occlusion (CAO) and macroaneurysm.
Material and methods: An otherwise healthy 60-year-old woman presented with a painless visual decrease with scotoma in her right eye. Fundus examination revealed retinal edema due to CRVO in association with macroaneurysm. Fluorescein angiography (FA) showed a prominent cilioretinal artery.
Result: Argon laser was applied for the patient. Follow up one week and one month later, retinal edema had subsided and only the signs of macroaneurysm were evident. The central scotoma remained unchanged. Visual acuity progressed from 6/12 to 6/6.7 at last follow-up.
CONCLUSIONS:
The combination of CAO and CRVO comprises a discrete clinical entity. In our case, FA did not show full obstruction of the cilioretinal artery. Even though many hypotheses have been postulated about CRVO with CAO and CRVO with macroaneurysm, it seems that it ensues from the increased intraluminal pressure in the retinal capillaries (due to CRVO), which exceeds the pressure in the cilioretinal artery and produced the macroaneurysm. Thus, it is probably a functional obstruction of the cilioretinal artery in the current issues.

PO-70

Host environment affects developing photoreceptors transplanted in a mouse model

小鼠模式宿主環境影響視網膜感光細胞移植後之發育

張義昇
成大醫院 眼科部

Purpose: To investigate the effect of host environment on developing photoreceptors transplanted in mice.
Methods: Immature photoreceptors from postnatal day 5 retina of Nrlp-eGFP mice were dissociated, added with matrix metalloproteinase-2 (MMP-2) or not, and injected into the sub-retinal space of WT or Cep290rd16/rd16;Nrl-/- mice, a CEP290 mutation model of Leber congenital amaurosis (LCA). Retinas were sectioned after 1 month for serial confocal imaging.
Results: Transplanted photoreceptors developed outer segments with polarization toward the retinal pigment epithelial layer. During cellular migration, defects of tight junctions at the outer limiting membrane (OLM) created the passage for transplanted cell bodies or processes. After reaching the outer nuclear layer, transplanted photoreceptors developed synapses and interacted with host bipolar cells. In the absence of MMP-2 addition, the number of integrated cells per eye was 1,664 ± 383 in WT mice and 636 ± 203 in Cep290rd16/rd16;Nrl-/- mice ($P < 0.05$). Addition of MMP-2 in Cep290rd16/rd16;Nrl-/- mice increased the number of integrated cells to 4,308 ± 1,466 ($P < 0.05$), induced more gaps in the OLM and more neuritic processes toward the OLM.

Conclusions: Trophic deprivation as seen in a degenerating host retina hampers development and integration of transplanted photoreceptors. Manipulation on the OLM barrier improves migration and integration.

PO-71

Effect of CJDHW on Retinal Ischemia: The role of p-38 on MMP-9

CJDHW 對視網膜缺血損傷的保護機制：調節 P-38/MMP-9 信號通路

程繼民，胡磊，劉榮宏，趙效明

台北振興醫院眼科部

Purpose: Retinal ischemia-associated ocular disorders are vision threatening. In this study we investigated the protective effects and therapeutic mechanisms of CJDHW on HIOP-induced retinal ischemia.
Methods: In the Wistar rats, the intraocular pressure was raised to 120 mmHg for 60 min to induce retinal ischemia. The methods include flash ERG recordings, immunofluorescence analysis, TUNEL assay, fluorogold retrograde labeling of RGCs, real time PCR, and Western blotting analysis.
Results: The HIOP-induced retinal ischemic changes were characterized by a decrease in electroretinogram (ERG) b-wave amplitudes, a loss of the fluorogold retrograde labeled RGCs and choline acetyltransferase immunolabeling of amacrine cell bodies/neuronal processes as well as increased Müller cell's vimentin immunoreactivity, together with upregulation of matrix metalloproteinase-9 (MMP-9) and p38 and downregulation of Thy-1, both at the protein levels. The ischemic detrimental effects were concentration-dependent (weaker effect at lower dose) and/or significantly (at higher dose) altered when CJDHW was applied one day before retina ischemia. Pre-treatment with CJDHW causes a significant reduction in the protein levels of MMP-9 and p38 as well as an increase in the Thy-1 protein levels.
Conclusion: Of clinical importance, Pre-treatment with CJDHW could have a protective effect on retinal ischemia by decreasing the expression of p38, which subsequently reduces the activation of MMP-9.

PO-72

A case report: bilateral retinal giant tear with detachment in a patient of Tourette syndrome

妥瑞症候群併發雙眼視網膜巨大裂孔合併視網膜剝離：案例報告

黃正賢，謝昀翰

國立台灣大學醫學院附設醫院 眼科部

Purpose: To report a case of retinal detachment over the both eyes in a patient of Tourette syndrome.
Methods: A case report
Results: This 31-year-old man is a case of Tourette syndrome. His involuntary movement included head nodding, involuntary limb movement, stabbing eye, and lip biting. He also presented with self-injury. He came to our hospital due to blurry vision of right eye for three weeks, and left eye for two weeks. Upon visiting our clinic, bilateral retinal detachment and traumatic cataract were noted. He received encircling scleral buckling and pars plana vitrectomy combined (PPV) with intravitreous (IV) silicone oil filled on the right eye and the left eye sequentially. Cataract surgery was also performed concurrently. His retina was reattached over both eyes at the last visit.
Conclusions: Tourette syndrome is an inherited neuropsychiatric disorder with onset in childhood, characterized by multiple physical (motor) tics and at least one vocal (phonic) tic. Some patient presented with some ocular symptoms such as blinking, blepharospasm, eye rolling, eye stabbing and rubbing the eyes. These ocular presentations may cause chronic ocular microtraumas. Traumatic retinal break or even detachment is a rare complication of Tourette syndrome.

PO-73

Sequential argon-YAG laser treatment for sub-internal limiting membrane hemorrhage

以 argon 及 Nd:YAG 雷射治療內限膜下出血

王嘉康[1,2]，陳爰邑[2]

[1] 亞東紀念醫院眼科，[2] 國立陽明大學醫學系

Purpose: To describe cases with sub-internal limiting membrane (ILM) hemorrhage treated by sequential argon-YAG laser.
Methods: We collected 7 eyes in 7 patients having sub-ILM hemorrhage confirmed by spectral-domain optical coherence tomography (SD-OCT), showing separation of hypo-reflective plane of posterior hyaloid and hyper-reflective plane of ILM, and the blood noted beneath ILM. Fundus photography showed a premacular hemorrhage with variable sizes. Five cases were diagnosed as Valsalva retinopathy. They had prior severe cough or lifting heavy objects, and no active leakage or vascular abnormalities noted by fundus fluorescein angiography (FFA). Two cases were diagnosed as retinal arterial macroaneurysm (RAM), which was found by FFA after the laser membranotomy.
Results: The argon laser was initially performed on the lower part of the hemorrhage to photocoagulate the ILM in energy of 300 mW, spot size of 100 um, duration of 0.1 second for three adjacent spot in order to weaken the tenacious surface of ILM. Subsequent Nd: YAG laser membranotomy was performed on the sites of

prior laser application in energy of 6-8 mJ. The fundus photography revealed the blood emptying and drainage into the inferior vitreous cavity an hour after treatment. All the cases had improved visual acuity following the laser therapy.
Conclusions: Sequential argon-YAG laser is a safe and effective method to remove the sub-ILM hemorrhage.

PO-74

Cytomegalovirus retinitis in a patient with systemic lupus erythematosus

巨細胞病毒視網膜炎於紅斑性狼瘡患者之表現

李浩榮，簡湘文，劉寬鎔
國泰綜合醫院 眼科部

Purpose: We report a case of a of cytomegalovirus(CMV) retinitis in a patient with systemic lupus erythematosus(SLE) which was initially recognized as lupus retinopathy.
Methods: Case report and literature review.
Results: A 38-year-old woman with SLE was admitted due to acute on chronic renal failure with SLE flare-up. She complained of progressive blurred vision in her left eye for one month and lupus retinopathy was initially impressed based on fundoscopic finding of retinal hemorrhage and cotton-wool spots. However, sudden decrease in visual acuity in her left eye was noted after three weeks, and CMV retinitis was diagnosed based on the progression of fundoscopic finding of extensive retinal hemorrhage, retinal necrosis in the ketchup and cheese pattern. Anterior chamber fluid PCR for CMV DNA further confirmed the diagnosis. Intravitreal injection of ganciclovir in both eyes and oral valganciclovir was administered. Retinal detachment and vitreous hemorrhage temporarily complicated the antiviral treatment course. Inflammation was controlled while varied visual recovery was noted in two eyes during the follow up period.
Conclusions: CMV retinitis is the most common ocular opportunistic infection in AIDS patients, while it should also be considered in patients with immunocompromised status including SLE flare-up. The clinical manifestation could mimic lupus retinopathy during the course of SLE flare-up. Timely differentiate these two etiology on clinical basis is imperative for early treatment. Once diagnosed, intravitreal injection of ganciclovir with oral valganciclovir is useful in controlling inflammation in our case while the visual outcome depends on the degree of retinal damage.

PO-75

Bilateral hemispheric retinal vein occlusion - a case report

雙眼上下側半視網膜中心靜脈阻塞 - 病例報告

姜威宇，陳志信
高雄長庚紀念醫院

Purpose: To describe a case of bilateral hemispheric retinal venous occlusion
Methods: Case report with history, clinical features and treatment course
Results: A 69-year-old male with smoking had no diabetes and hypertension. Initially he presented with blurred vision (OS) (visual acuity 0.2) with impression of inferior hemi-CRVO with macular edema. VA improved after IVI Triamcinolone twice. However, 9 months after ocular symptoms (OS), blurred vision (OD) (VA 0.3) was also noted with impression of superior hemi-CRVO with macular edema. Symptoms subsided after IVI Triamcinolone and PRP.
Evaluation for cardiovascular risk factors, including EKG, carotic echo, and treadmill, revealed mild carotid stenosis.
Conclusions: A hemispheric retinal vein occlusion may involve the vertical half of the retina. Bilateral eyes with superior and inferior side individual involvement is rare and risk factors should be recognized with caution.

PO-76

Effects of Intravitreal Transplantation of Mesenchymal Stem Cells on a Rat Model of Retinal Ischemia

眼內移植間質幹細胞對大鼠網膜缺血的影響

馬嘉徵，傅毓秀，趙效明
台北振興醫院眼科部

Purpose: Retinal ischemic disorders are vision-threatening. These include central retinal artery occlusion, branch retinal artery occlusion, diabetic retinopathy, hypertension, or glaucoma. It will lead to death of retinal cells, and thereby results in severe loss of vision. We evaluated the effects of intravitreal transplantation of mesenchymal stem cells (MSCs) on retinal ischemia in the rats.
Methods: Retinal ischemia was induced by raising intraocular pressure to 120mmHg for 60 minutes in Sprague-Dawley rats (280-300g). The methods include electroretinogram (ERG), Immunohistochemistry (IHC), and western blot.
Results: Firstly, in untreated normal eyes, the mean ERG b-wave amplitudes were measured as 0.650 mV. When retinal ischemia was induced and followed by reperfusion for 1 day, the b-wave amplitudes were dramatically reduced to 0.249mV. Secondly, MSCs survived for 1 week after they were transplanted into the normal rat's eyes. Moreover, how the transplanted MSCs survived in the ischemic rat' s eyes were evaluated as

well.
Conclusion: Clinically importantly, the transplantation of MSCs may improve the visual functions of the rat' s ischemic retina by regenerating cells injured by retinal ischemia.

PO-77

Outcome of 23-gauge vitrectomy for acute post-operative endophthalmitis after cataract surgery

以 23-gauge 玻璃體切除手術治療白內障術後眼內炎之成果

陳世洲，吳宗典，許淑娟
高雄榮民總醫院 眼科部

Purpose: To report our experience of 23-gauge vitrectomy for acute post-operative endophthalmitis after cataract surgery.
Method: A retrospective chart review study. Patients with acute post-operation endophthalmitis after cataract surgery who received 23-gauge vitrectomy by one retinal specialist from January 2011 to December 2013 at Kaohsiung Veterans General Hospital, Taiwan were included.
Results: 12 patients with 8 male and 4 female were included. The mean age was 73.08 ± 8.91 years. The initial visual acuity was light perception in 4 patients, hand motion in 2 patients, counting fingers in 5 patients, and better than counting finders in 1 patient. All patients received intravitreal injection (IVI) of antibiotics and 23-gauge vitrectomy. The interval between initial eye symptoms and vitrectomy was 3.33 ± 2.77 days (0–11 days), and the interval between diagnosis of endophthalmitis and vitrectomy was 1.33 ± 1.37 days (0–4 days). The final visual acuity was no light perception in 1 patient, light perception in 1 patient, between 6/60 and 6/12 in 5 patients, and 6/12 or better in 5 patients.
Conclusion: 23-gauge vitrectomy is safe and effective in the management of acute post-operative endophthalmitis. The advantages include a shorter surgical time, minimal conjunctival damage, and earlier postoperative recovery. Early diagnosis and treatment with 23-gauge vitrectomy may provide a generally good visual outcome.

PO-78

Preliminary Experience with Aflibercept

Aflibercept 的初步治療經驗

曾垂鍊，許淑娟
高雄榮民總醫院眼科部

Purpose: To report our experience of using aflibercept in three cases of refractory age-related macular degeneration (AMD) with polypoidal choroidal vasculopathy (PCV).
Methods: Case reports and literature review
Results: Three cases were diagnosed as AMD with PCV by optical coherence tomography and indocyanine green angiography. In all three patients, multiple injections of intravitreal anti-VEGF therapy (0.5 mg ranibizumab; 1.25mg bevacizumab ; 0.3mg pegaptanib) and photodynamic therapy have been done, but the lesions remained active. For the persistent lesions, they were then converted to 2.0 mg aflibercept monotherapy for 4-6 doses. In the following visit, OCT showed resolution of exudative fluid in two cases, but refractory intraretianl fluid in the other one. Persistent actively leaking polyps were noted on ICG in the third one.
Conclusion: Our limited experience showed that alibercept might be an alternative choice in refractory polypoidal choroidal vasculopathy with persisted exudative fluid. However, it seems to be less effective in achieving complete polyp regression if the polyps remained active.

PO-79

Bilateral retinal hemorrhages as initial presentation of acute lymphoblastic leukemia - A case report

以雙眼視網膜出血為初始表現之急性淋巴性白血病 – 病例報告

程識霖，龔雅欣，吳宗典，許淑娟
高雄榮民總醫院 眼科部

Purpose: To report a case of bilateral retinal hemorrhages as initial presentation of acute lymphoblastic leukemia
Methods: A case report and literature review.
Results: A 15-year-old boy, who was well-being before, suffered from progressively blurred vision in the right eye for about one week. On examination, the visual acuity was 6/60 in the right eye and 6/7.5 in the left eye. Dilated fundus examination revealed a macular hemorrhage in the right eye and multiple white-centered retinal hemorrhages scattered over vascular arcades in both eyes. Tachycardia and tachypnea were also noted. Laboratory work up showed leukocytosis and bicytopenia (White blood cell: 595.2 k/ul, hemoglobin: 4.6 g/dl, platelets: 68 k/ul). Bone marrow aspiration cytology revealed acute lymphoblastic leukemia, L2. Bone marrow chromosome study showed t(9; 22) and positive Philadelphia chromosome. Two months after induction chemotherapy, bilateral retinal hemorrhage resolved gradually and the visual acuity recovered to 6/12 in the right eye and 6/6 in the left eye.
Conclusion: Although patients with acute leukemia may rarely present solely with bilateral retinal hemorrhages initially, clinicians should keep alert and make thorough

examinations to diagnose and treat such cases early.

PO-80

Subtle Solar Retinopathy Detected by Fourier domain Optical Coherence Tomography - two case reports

以傅立葉域光學同調斷層掃描系統偵測出細微的日光性視網膜病變－兩病例報告

龔雅欣，吳宗典，程識霖，許淑娟
高雄榮民總醫院 眼科部

Purpose: To report two cases of subtle solar retinopathy detected by Fourier domain Optical Coherence Tomography
Methods: Two case reports and literature review.
Results: Two male patients suffered from paracentral scotoma and sudden onset of blurred vision in the left eyes shortly after unprotected solar observation in the similar way, respectively. On examination, anterior segments were normal bilaterally. Dilated fundus examination, fluorescein angiography, and central visual field testing did not reveal any abnormal findings. Fourier-domain optical coherence tomography was used for evaluation, and a focal defect in the inner and outer segments of the photoreceptor layer band was noted in the paracentral region of the fovea in both cases.
Conclusion: Solar retinopathy is preventable with adequate eye protection. Education should be reinforced to the public. In mildly affected individuals with subtle retinal damage, Fourier-domain optical coherence tomography could be a useful imaging tool to detect the disease.

PO-81

Vitrectomy and Intravitreal Bevacizumab for Vitreous Hemorrhage Associating with a Choroid Metastasis – a Case Report

以玻璃體切除及玻璃體注射 Bevacizumab 治療脈絡膜轉移合併玻璃體出血之病例報告

張嘉仁* 鄭元韶
臺中榮民總醫院 眼科部

Purpose: One of the common symptoms of ocular metastasis was blurred vision or decreased visual acuity. We presented a therapeutic experience for a patient who complained blurred vision and had vitreous hemorrhage as the sign of choroidal metastasis.
Methods: A case report
Results: A 51-year-old female with history of lung cancer complained sudden onset visual field defect and blurred vision in the left eye for one day. Results of ocular examinations were normal except vitreous hemorrhage and a yellowish elevated mass at the superonasal quadrant fundus in her left eye. Orbital Magnetic resonance imaging revealed a rounded lesion in the left eyeball which was 7.5 mm in horizontal length. Because the patient refused radiotherapy, 23-gauge pars plana vitrectomy and intravitreal bevacizumab injection were performed. The follow-up best corrected visual acuity is improved and the size of choroidal mass is not progressive.
Conclusion: Vitreous hemorrhage can be one presenting sign of choroid metastasis. For patients with a diagnosis of vitreous hemorrhage from choroidal metastasis who refuse to receive radiotherapy, vitrectomy with intravitreal bevacizumab may be a choice to improve quality of life.

PO-82

Rapid Resolution of Pre-eclamptic Serous Retinal Detachment Indicates Significant Systemic Changes – Case report

子癲前症造成之漿液性視網膜剝離之快速復原反映全身系統性之變化

許詠瑞，翁紹維
亞東紀念醫院

Purpose: To report a case of rapid resolution of preeclamptic serous retinal detachment (RD) after intrauterine fetal demise.
Methods: case report.
Results: A 29 year-old pregnant woman with gestational age 28 weeks presented with mild blurred vision in her right eye for 1 day. Her visual acuity (VA) was 20/30 over right eye, and 20/20 over left eye. Indirect ophthalmoscopy revealed peripherally localized retinal detachment (RD) in temporal upper quadrant, which extended to ora serrate, with spared macula. No retinal break or fluid shifting nature was noted. Hypertension and proteinuria without adequate control were noted by obstetrician 4 weeks ago. Since rhegmatogenous RD with undetected break couldn't be completely excluded, focal photocoagulation was applied. However, diffuse circumferential bullous RD with profound shifting nature, splinter hemorrhage and cotton-wool patches were noted at 2-week follow-up visit. VA dropped to 20/60 bilaterally. Optical coherence tomography showed subretinal and intraretinal fluid over both eyes. The diagnosis of serous RD due to preeclampsia was established. Poor compliance resulted in no control of preeclampsia. Nevertheless, dramatic reattachment of retina was noted another week later, with subjective improved visual acuity to 20/40 over both eyes. Prompt obstetric referral was done. Ultrasonography revealed the absence of fetal heartbeat. Intrauterine fetal demise was hence diagnosed, and the fetus delivered. Two weeks after the delivery, VA recovered to 20/20

bilaterally, with mild residual scotomata. Fundus exam showed well attached retina with profound pigmentary changes.
Conclusion: Just as the emergence of serous RD in pregnant women, the resolution of that in preeclampsia warrants systemic survey for underlying causes. Visual outcome is generally favorable.

PO-83

Half-Dose Photodynamic Therapy for Central Serous Chorioretinopathy Co-exited with Age-Related Macular Degeneration --- A Case Report

以半劑量光動力療法治療合併老年性黃斑部病變之中心漿液性視網膜脈絡膜病變 --- 病例報告

陳芳婷
新北市板橋亞東紀念醫院 眼科部

Purpose: To report a patient with atypical presentation of central serous chorioretinopathy (CSC) treated by half-dose photodynamic therapy (PDT)
Methods: A case report
Results: A 62-year-old male suffered from blurred vision and micropsia in the right eye for 1 month. No previous episode was reported. He had no systemic disease and denied long-term medication usage. His visual acuity was 20/50 in the right eye and 25/50 in the left eye at initial visit. Ocular examination found moderate cataract and some drusen in the macula in both eyes. Notably, there was shallow sub-retinal fluid (SRF) at the center of the macula without any hard exudates or intra- or sub-retinal hemorrhage in the right eye. OCT examination of the right eye revealed a pocket of SRF in the foveal center with no underlying choroidal neovascularization (CNV). In addition, both eyes showed some irregularities in the retinal pigment epithelium (RPE), compatible with the finding of drusen in fundoscopy. FAG revealed several spots of window defect at macula in both eyes, reflecting drusen and some RPE change, and one site of smoke-stack leakage at parafovea in the right eye. The diagnosis was CSC in the right eye and dry AMD in both eyes. Two months later, he received intravitreal injection of bevacizumab (1.25mg), but there was no improvement both anatomically and functionally. Half-dose PDT aiming at the leaking point was performed 4 months after the onset of symptom. After PDT, the SRF transiently increased with a decrease in visual acuity in the first 2 weeks, and then the SRF gradually resolved accompanied by vision improvement in 1.5 months.
Conclusions: This case indicated that half-dose PDT may be effective in the treatment of CSC with co-existing dry AMD.

PO-84

Retinal hemorrhage complicated with macular edema in von Willebrand disease

視網膜出血併黃斑部水腫在 von Willebrand disease 的表現：病例報告

陳達慶，鄭琪睿
國立台灣大學醫學院附設醫院 眼科部

Purpose: To report a case with von Willebrand disease presented with retinal hemorrhage followed by macular edema.
Methods: A case report
Results: A 16 year-old girl with von Willebrand disease complained about blurred vision in right eye. Before her presence, intermittent epistaxis without menorrhagia, or other bleeding episodes were noticed. Her corrected vision was 0.05 in right eye and 0.4 in the left at her first presence. Her initial ocular examination showed retinal hemorrhage at posterior pole in right eye. Pappillaedema with cystic macular edema was noticed in bilateral eyes. Her fluorescence angiography showed leakage at macula and disc without noticed microaneurysms or neovascularization. During the 6-month follow-up, there was no improvement of macular edema in bilateral eyes.
Conclusions: Von Willebrand disease is a hematologic disease with bleeding tendencies. More frequent presentations are mucosal bleeding, for example, epistaxis or gum bleeding. This is the first case presented spontaneous retinal hemorrhage with macular edema in literature.

PO-85

The Effects and Therapeutic Mechanisms of CT on Retinal Ischemia

CT 對於高眼壓誘發之大鼠網膜缺血的療效及機轉

趙效明，劉榮宏，陳應麟
台北振興醫院眼科部

Purpose: Retinal ischemia disorders are vision-threatening. These include central or branch retinal artery occlusion, central or branch retinal vein occlusion, diabetic retinopathy and glaucoma. In this investigation, we evaluated the role of CT as a protectant against retinal ischemia.
Methods: Retinal ischemia was induced by raising intraocular pressure to 120 mmHg for 60 minutes in the Wistar Rats (300-310 g). The methods involved ERG, immunohistochemistry, immunocytochemistry and western blot.
Results: Mean ERG b-wave amplitudes for untreated eyes were 0.680 mV. HIOP induced retinal ischemia drastically reduced the b-wave amplitudes down to

0.275 mV.
Conclusion: CT may act as an anti-apoptotic agent as well as a free radical scavenger. Together, CT might have protective effects against retinal ischemia by defined mechanisms.

PO-86

Spontaneous bilateral macular hemorrhage without choroidal neovascularization in myopic patient — A Case Report

近視病患產生雙側無脈絡膜新生血管自發性黃斑部出血之病例報告

傅柏元，莊超偉
戴德森醫療財團法人嘉義基督教醫院眼科部

Purpose: To present a case of spontaneous bilateral macular hemorrhage without choroidal neovascularization in myopic patient
Methods: case report
Results: A 31 years old female with no underlying disease suffered from blurred vision in right eye for 1 week. She had LASIK ou due to myopia (-8,0 diopters ou) 5 years ago. Her best corrected visual acuity (BCVA) declined to 0.05 in right eye and 1.0 in left eye. Fundus examination showed tessellated with central macular hemorrhage in right eye. Fluorescin angiography showed no obvious choroidal neovascularization. After one week, we arranged intravitreal injection(IVI) of Avastin in right eye. However, she felt sudden onset blurred vision in left eye on the day before injection. BCVA declined to 0.1 in left eye. Fundus examination also showed central macular hemorrhage in left eye. Two days later, we arranged IVI of Avastin in left eye. After one month observation, the macular hemorrhage gradually absorbed in both eyes, and BCVA was improved to 0.7 in right eye and 0.5 in left eye.
Conclusions: Spontaneous bilateral macular hemorrhage without choroidal neovascularization is not often seen in myopic patient. Intravitreal injection of Avastin seems effective for absorption of macular hemorrhage and improves visual acuity.

PO-87

A case of acute retinal pigment epithelitis

案例報告：急性視網膜色素上皮細胞炎

黃正賢，劉欣瑜
國立台灣大學附設醫院 眼科部

Purpose: To report the retinal morphologic changes in a patient with acute retinal pigment epithelitis (ARPE) after an episode of suspected hemorrhagic dengue fever
Method: A case report.
Result: A 24-year old man presented to us with complaints of blurred vision in the left eye for 4 days. According to his statement, he just recovered from hemorrhagic Dengue fever which was diagnosed in Indonesia three weeks ago. Ophthalmoscopy revealed fine hypopigmented stippling in the fovea with blunting of the foveal reflex in the left eye. Optical coherence tomopgraphy showed thickening and undulation of the retinal pigment epithelium (RPE) with disruption of the inner segment/outer segment (IS/OS) junction in the subfoveal region. Other layer of the retina appeared normal. After three months without any treatment, the visual acuity normalized with the recovery of continuity in the IS/OS junction as well as decreased RPE irregularity.
Conclusion: ARPE is a rare, typically self-limited macular disorder, which can occur as a post viral reaction.

PO-88

Spontaneous closure of traumatic macular hole- Case Report

創傷性黃斑部裂孔之自發性閉癒合 - 案例報告

楊長豪[1]，賴佐庭[1]，高姿芸[1]
國立臺灣大學醫學院附設醫院[1]

Purpose: To report a case of traumatic macular hole following ocular blunt injury resolving spontaneously without surgical intervention.
Methods: Case report.
Results: A 13-year-old boy with persisted blurry vision in the right eye after an episode of blunt injury 1 month before presenting to our hospital. Hyphema was noted initially by local medical doctor and resolved during follow-up. Upon the initial examination, visual acuity of the right eye was 0.15. The anterior segment was normal and fundoscopy revealed a macular hole in the right eye. Optical coherence tomography (OCT) revealed macular hole with surrounding cystic edema. The patient and parents declined surgical intervention and loss of follow-up. One year later, the patient showed up again with mild improved vision. The visual acuity was 0.3 at that time. No treatment was done during this period, OCT revealed spontaneous closure of the macular hole. Normal configuration in the macular area was noticed without obvious atrophic change. However, some posterior subcapsular cataract was found in the right eye during slit-lamp examination.
Conclusions: Traumatic macular hole is a complication after ocular injury more frequently in young males. This condition often results from blunt injuries in sports-related accidents, especially in closed globe injuries. Previous studies had reported a wide range of

spontaneous closure rate from 10% to 67% in traumatic macular hole. Those who had persisted macular hole may benefit from vitrectomy with a high successful closure rate up to 96%. Our case demonstrated the classic course of the traumatic macular hole with spontaneous closure. This possibility should be taken into consideration when surgical intervention is planned.

PO-89

Macular Pucker: Peel or Injection

黃斑皺褶：剝除或玻璃體腔注射

趙效明 , 劉榮宏
振興醫院眼科部

Purpose: Macular pucker (MP) associated with macular edema (ME) is vision-threatening. The investigation and management is mandatory.
Methods: Results of visual acuity, microperimetry (MP-1), standard electroretinogram (sERG) and optical coherence tomography (OCT) of central retinal thickness (CRT) and macular volume (MV) were evaluated (mean age ± SD, 76.30 ± 7.5 years) preoperatively (baseline) and postoperatively (generally at a monthly base). Enrolled patients whose pucker was peeled were classified into three groups based on the OCT pucker patterns, namely MP with mushroom umbrella (MU; n=6) epimacular membrane (EMM), volcano or tsunami-like shape (VT; n=3) EMM and MP with cyst-like macular edema (CME or ME; n=4). Furthermore, intravitreous injection (i.v.i.) of kenacort (IVIK), avastin (IVIA), lucentis (IVIL), avastin plus kenacort (IVIA+IVIK) or lucentis plus ozurdex (IVIL+IVIO), subconjunctival injection of kenacort (SCIK) as well as injection of IVIA plus SCIK were administered to others (7 eyes out of 6 patients) to alleviate their many episodes of pucker associated macular edema without membrane removal or after EMM peeling. The number of episodes of macular edema cured by a single injection was counted at various groups. The pre-injection and post-injection central retinal thickness and best corrected visual acuity (logMAR) were recorded.
Results: Those MPMU patients whose EMMs (n=6) were peeled (Figure 1) had significant postoperative improvement in terms of BCVA (by LogMAR), CRT and MV (Figure 2). In particular, their postoperative improved BCVAs (LogMAR) were significantly different from those of either group of MPVT (n=3) or group of MPME (n=4). In contrast, after EMM peeling for patients in groups of MPVT and MPME, there was a significant reduction in MV, but only a trend of reduction in CRT. On the other hand, numerous episodes of CME which was dried by a single intravitreous injection (i.v.i.) of kenacort [n=20; CME which recurred (n=5) was dried in a patient with EMM peeling]. Moreover, there was a significant postoperative reduction in central retinal thickness and a trend of postoperative improvement in BCVA (LogMAR; Figures 3 and 4). In Fig 4D, as compared to those cases with no CME (NME; n=6), the MP cases with CME (ME; n=4) had significantly higher levels of MCP-1, an inflammatory biomarker. This pioneering finding relevantly explains why CME was dried by a single anti-inflammatory agent kenacort injection which was given to the MP patient. Other single agent (n=5) or combined agents (n=3) were injected and also treated effectively the CME (Fig 4A~4C).
Conclusion: Macular pucker peeling could be cautiously and selectively performed on those patients of MPMU (n=6) in terms of significant postoperative improvement in BCVA as well as significant postoperative reduction in CRT and MV. Furthermore, MV might be more sensitive in detecting macular edema change than CRT. What is more, inflammation might play a role in MPME patients with a higher MCP-1 levels. Therefore, alleviation of edema and vision improvement was respectively significantly and obvious after i.v.i. kenacort was given to MP patients with CME.

PO-90

A case report: Diabetic papillopathy with macular edema

糖尿病性視乳突病變合併黃斑部水腫

齊育殿
新光吳火獅紀念醫院 眼科

Background: Describe the clinical findings and course of diabetic papillopathy with macular edema.
Methods: A 50-year-old diabetic male presented with acute painless visual loss in his right eye (OD). The best corrected visual acuity was 6/10 (OD) and 6/6 (OS) with unremarkable anterior segment findings (OU). Posterior segment showed swollen optic discs (OU) with diffuse macular edema (OD). Fundus fluorescein angiography revealed nonproliferative diabetic retinopathy (NPDR) with hyperfluorescent optic discs (OU) and right macular edema. Altitudinal visual field defect (OD) was found. Computerized tomography scan orbit and brain was normal. So, the diagnosis of diabetic papillopathy (OU) was made.
Results: The patient received an intravitreal bevacizumab injection (OD) 1 week later. His macular edema subsided rapidly after the injection. and only the signs of optic disc swelling were evident. The best corrected visual acuity (OD) progressed from 6/10 to 6/7.5 at last follow-up.
Conclusions: Diabetic papillopathy is a rare disease and its diagnosis is made by exclusion. The exact pathogenesis is uncertain. The disc swelling tends to resolve spontaneously within 3–4 months. However,

in very few case reports treatment with intravitreal corticosteroids or antivascular endothelial growth factors was suggested. Intravitreal injection of bevacizumab is effective for its treatment, but only few cases were reported in the literature.

PO-91

Punctate inner choroidopathy in association with presumed peripheral retinal vasculitis - the case report

點狀內層脈絡膜病變合併視網膜週邊推擬之血管炎病症－病例報告

劉榮宏，陳怡均，趙效明，蔡佳臻，陳却臻
新光吳火獅紀念醫院 眼科

Purpose: To report a case of bilateral macular punctuate inner choroidopathy(PIC) associated with the presence of presumed vasculitis on the peripheral retina.
Methods: Descriptive case report.
Results: A 20-year-old female presented at the eye clinic with a history of sudden onset of blurred vision in the left eye for the past 3 days. She has been healthy and had no particular systemic illness before or during the time period of eye problem. Eye examination revealed her vision to be O.D. 1.0 and O.S. 0.4 with her glasses（OD-11.0 D，OS-12.0 D）. Anterior segments were all WNL. Fundoscopy revealed numerous yellowish white puntate lesions on both macula, more in O.S. On the peripheral retina, there showed the circumferential zonule of yellowish discoloration. FAG revealed fluorescein leakage from peripheral retinal capillaries with non perfusion on outer region of retina.
Impression: acute PIC in association with peripheral retinal vasculitis. Laboratory test: cANCA, pANCA, Anti-cardiolipin antibody (IgM and IgG), and DNA antibody all Negative. HSV: IgM Negative, IgG(+)58.4 mIU / ml, HZV: IgM Negative, IgG(+)1987 mIU / ml.CBC:WNL, Chest X-ray and Bacteria and fungus cultures all Negative. Treatment course: Patient was placed on prednisolone 20mg BID for 1 Week. Her vision OS improved to 1.0. Fundoscopy looked the same at this time.
Discussion: The cause of PIC is unknown. It has been speculated that infection could be the factor causing chorioretinitis that markes PIC. However, very few reports correlate the infection source and PIC in the eye. In this case, we observe the simultaneous presentation of PIC and sign of vasculitis. That indicated both PIC and vasculitis may have the same etiology of disease. Present study on the mechanism and laboratory test for the vasculitis is however inconclusive. Futher study is required on both PIC and peripheral vasculitis.

PO-92

Acute Rhegmatogenous Retinal Detachment after Intravitreal Injection

玻璃體內藥物注射術後之急性裂孔性視網膜剝離

蔡芳儀，陳世真，李鳳利
台北榮民總醫院

Purpose: To report two cases of acute rhegmatogenous retinal detachment (RRD) developed after intravitreal injection (IVI).
Method: Case report.
Result: The first case was a 60-year-old male with classic choroidal neovascularization in the left eye. The initial best-corrected visual acuity (BCVA) was 1/60. IVI was performed that bevacizumab 2.5mg/0.1ml was injected from the pars plana over superior-temporal quadrant, following by anterior chamber paracentesis immediately. RRD over temporal side with macula involvement developed one week after his second injection. Multiple small flap tears were noted in temporal hemisphere. The retina was attached after pars plana vitrectomy, and the final BCVA was 2/60. The second case was a 62-year-old female with polypoidal choriovasculopathy in the right eye, having BCVA as 6/60 after multiple IVIs in the same manner. Superior RRD associated with a flap tear over superior-temporal area was found one day after the latest injection. The retina was attached after emergent pneumatic retinopexy, and the post-operative BCVA was 4/60.
Conclusion: Acute RRD is a rare but still possible complication after IVI. The risk can be minimized by a careful injection technique.

PO-93

Central retinal artery occlusion combined with posterior ciliary artery occlusion and presented with Amalric triangular sign – Case report

視網膜中心動脈併後睫狀動脈阻塞表現為 Amalric triangular sign－病例報告

鄭成國[1,2,3]，李怡萱[1]
新光吳火獅紀念醫院 眼科部[1]，天主教輔仁大學 醫學系[2]，
國立台灣大學醫學系 3

Purpose: To report a case of 49-year-old female with central retinal artery and posterior ciliary artery occlusion presenting with typical Amalric triangular sign in the fluorescein angiography.
Methods: Case report
Results: A 49-year-old female presented with blurred vision in the left eye for 1 day and fundus examination revealed retinal edema with cherry red spot. Fluorescein angiography showed delayed choroidal filling, delayed arteriovenous transit time and multiple hyperfluorescent area with dense fluorescence in the late phase -

the Amalric triangular sign, which represented as obstruction of posterior ciliary artery. Her neck Doppler found a severe stenosis of the left internal carotid artery.
Conclusions: To report a rare and typical picture of Amalric triangular sign in case of central retinal artery occlusion combined with posterior ciliary artery occlusion.

PO-94

The short-term outcome of Aflibercept treatment for cases of refractory neovascular age related macular disease in Taiwan

Aflibercept 用來治療台灣老年性黃斑部病變之困難病例的早期療效

鄭成國 [1]，張婺婷 [2]
新光醫院

Purpose: To assess the short-term outcome of intravitreal aflibercept in patients with refractory neovascular age-related macular degeneration (AMD) in Taiwan
Methods: Retrospective chart review. From June 2013 to January 2014. 6 eye in 4 patients of refractory AMD(persistent subretinal fluid(SRF) or persistent retinal pigment epithelial detachment (RPED)).
Results: Eyes received a mean of 17.17 prior bevacizumab/ranibizumab injections and a mean of 2.67 aflibercept injections. Mean BCVA(based on ETDRS chart) and central retinal thickness(CRT, based on time-domain OCT) were 0.4(51.67letters) and 277 micron before aflibercept injections. Final mean BCVA was 0.46(52.5) and final mean CRT was 227.5 micron. Mean BCVA improvement was 0.83 letters (P=0.73). Mean CRT improvement was 49.5 micron (P=0.027798).
Conclusions: The short-term outcome of intravitreal injections of aflibercept resulted in a significant improvement in anatomical outcomes in eyes with refractory AMD, but final BCVA showed insignificant improvement in Taiwaneses patients.

PO-95

Unilateral papilledema in a non-immunocompromised patient with Cryptococcal meningitis - Case report

單側視乳突水腫在免疫正常之隱球菌腦膜炎患者之表現 - 病例報告

鄭淵宇，陳勇仁
高雄長庚紀念醫院

Purpose: To report a case of cryptococcal meningitis in a non-immunocompromised patient who presented with unilateral optic disc edema.
Methods: Case report.
Results: This 54 year-old male patient had history of thyroid goiter status post subtotal thyroidectomy in 1985. He suffered from headache for 1 month. Then three days later, he developed eye pain, blurred vision, photophobia (OD) and binocular diplopia. Ocular examiation showed visual acuity was 20/800 (OD), 20/20 (OS), right slight ptosis, sluggish pupil (3.5mm) and ophthalmoplegia in superior and temporal direction. Fundus examination revealed disc edema, dot retinal hemorrhage and vessel engorgment (OD). Goldmann perimeter revealed visual field constriction of right eye. Brain Magnetic Resonance Imaging (MRI) showed diffuse and irregular leptomeningeal enhancement in posterior fossa.Lumbar puncture showed normal opening cerebral spinal fluid (CSF) pressure (15.3mmHg); lymphocyte predominant associated with decreased CSF/Blood glaucose ratio. Cryptococcal organisms were identified by CSF Crypt Ag(1:128) . The patient was treated with intravenous amphotericin B and Fluconazole. After discharge, he received our regular ophthalmology department and he recovered a vision of 20/30 in right eye. Fundus examination of right eye revealed mild optic disc atrophy and resolution of the retinal heamorrhages.
Conclusion: Unilateral papilledema with retinal heamorrhages can be found in a patient of cryptococcal meningitis without increased Intracranial Pressure. Early diagnosis and prompt treatment with a combination of intravenous Amphotericin B and Fluconazole can lead to resolution of retinal lesions.

PO-96

Retinal and Cortical Stem Cells: Self-renewal; Differentiation; Role of Nanog

網膜及皮質前驅細胞：再生、分化、Nanog 角色

賴明義，潘懷宗，趙效明
台北振興醫院眼科部

Purpose: Both retinal progenitors (RPs) and cortical progenitors (CPs) are known to possess the properties of self-renewal and differentiation. Presently, a comparison has been made in the proliferation ability and differentiation between two progenitors. Age-related macular degeneration (AMD) is accepted to be related to oxidative stress and vision-threatening. It has been investigated whether this study might provide an alternative way of provision of retinal cells to replace the dead cells caused by exudative/wet or neovascular AMD (wAMD).
Methods: The methods involved cell culture,

neuroshpere counting, immunocytochemistry / immunohistochemistry, ERG, Western Blot and/or real-time PCR.
Results: Progenitors isolated from retina and brain cortex of 3-day-old rats were cultured in 96-well plates containing serum-free Dulbecco's Modified Eagle Medium (DMEM) with/without epidermal growth factor (EGF), basic fibroblast growth factor (bFGF) and cytokines such as progesterone; the addition of defined substances obviously increased the proliferation abilities of two progenitors. As compared to the mean neurosphere numbers of RPs and CPs in week 1 (6.4480±1.23x103; 5.3600±0.47x103), those of defined progenitors respectively increased several folds in weeks 3, 5, 7, and 9 as follows (3.3, 9.2, 17.4, and 23.8; 3.9, 8.7, 15.3, and 21.3). RSCs appear to possess greater proliferation ability than CSCs at different time-points. Consistently, the levels of Nanog and glial derived neurotrophic factor in RPs were higher than those in CPs. One week after adding 5% fetal bovine serum as well as removal of growth factors and cytokines from the DMEM, the percentages of nestin-(+) cells (68.0%±14.5%), microtubule-associated-protein-2-(+) neurons (76.9%±21.8%) and glial-fibrillary-acidic-protein-(+) glial cells (81.1%±9.0%) differentiated from RPs were higher than those from differentiated CPs (36.3%±10.9%; 49.3%±10.5%; 52.9%±14.5%). Iron induced oxidative stress to mimic was established utilizing 25 nmole FeSO4 intravitreously injected into the rat eye. Defined differentiated retinal cells labelled with the succinimidyl ester of carboxyfluorescein diacetate (5(6)-CFDA, SE) were implanted intravitreously into the siderotic eye attenuated the iron-induced reduction in retinal physiologic function. This might be due to incorporation of the grafted retinal cells into various injured retinal layers and subsequent up-regulation of the brain-derived neurotrophic factor and glial cell line-derived neurotrophic factor mRNA.
Conclusion: The present results have supported that, in 3-day-old rats, RPs displayed higher ability of self-renewal and differentiation than CPs. Grafted retinal cells might alternatively replace the dead cells caused by wAMD.

PO-97

Improvement of Visual Field and Visual Function Following Steroid Treatment in Acute Zonal Occult Outer Retinopathy – Two Case Reports

急性區域性隱匿性外層視網膜病變經類固醇治療之兩例案例報告

鍾雨潔 *，蔡芳儀，李鳳利，陳世真
臺北榮民總醫院眼科部

Purpose: To report two cases of acute zonal occult outer retinopathy (AZOOR) with positive response after steroid therapy.
Methods: Two case reports.
Results: Case 1 A 41-year-old woman presented with sudden blurred in the right eye for one week. The visual acuity was CF/10cm. Fine vitreous cells with limited exudate around optic disc in the right eye were found. Impaired color sensation with a positive relative afferent pupillary defect (RAPD) was also observed. Humphrey visual field testing showed severe constriction with a mean defect of -28.77dB. Steroid pulse therapy was initiated with gradual improvement of visual acuity to 6/7.5 and recovery of central defect but left an enlarge blind spot in visual field test within 2 months. A follow-up fundus autofluorescence of peripapillary hypoautofluorescence ring with corresponding loss of IS/OS in OCT confirmed the diagnosis of AZOOR. Case 2 A 40-year-old women presented with tunnel vision and flashes of lights OD for one month. Visual acuity was 6/6.7 in the affected eye. Ophthalmic examination revealed minimal vitreous cells. Humphrey visual field testing showed blind spot enlargement with a mean deviation (MD) of -21.35dB. OCT showed flat macula with attenuation of peripapillary IS/OS line, leading to the diagnosis of AZOOR. One month later, the visual field testing didn’ t improve, and sub-tenon kenacort was performed with gradual improvement of visual field to MD value of -10.71dB 6 months later.
Conclusions: Both cases of AZOOR presented with minimal vitreous cell, impaired visual field testing, peripapillary IS/OS loss in OCT, and prompt positive response to steroid treatment. The findings suggest that steroid therapy may be a potentially effective treatment for patients with AZOOR who had vitreous reaction.

PO-98

Mysterious responses to treatment for diabetic macular edema in an eye of silicone oil temponade: a case report

一矽油灌注眼之糖尿病黃斑部水腫對治療之奇特反應：病例報告

張雲翔
三軍總醫院

Purpose: To report on intravitreal ranibizumab for intervening diabetic macular edema (DME) in a case of proliferative diabetic retinopathy with tractional retinal detachment successfully repaired with pars plana vitrectomy and silicone oil tamponade.
Methods: Intravitreal ranibizumab was performed in a 37-year-old woman with diabetic macular edema. The patient had previously undergone vitrectomy and silicone oil tamponade for proliferative diabetic retinopathy with tractional retinal detachment.

Results: Severe diabetic macular edema was noted after vitrectomy and silicone oil tamponade. The central foveal thickness was around 600 to 800 micro-meter despite sub-Tenon's injection of triamcinolone twice, grid laser to macula twice, and monthly intra-silicone ranibizumab injection for 4 times. However, as soon as 4 days after removal of the intraocular silicone oil, spectral-domain optical coherence tomography (SD-OCT) showed resolution of macular edema.
Conclusions: Our results suggest that intravitreal injections of ranibizumab may fail to treat diabetic macular edema in eyes with silicone oil as intraocular tamponade.

PO-99

Aflibercept for the Management of Refractory Macular Edema of Irvine Gass Syndrome – Case Report

以采視明處理難治的白內障術後黃斑囊樣水腫 – 病例報告

郭鐘元，林純如，陳文祿，林正明，田彭太，何宜豪，蔡宜佑
中國醫藥大學附設醫院 眼科部

Purpose: A patient with pseudophakic cystoid macular edema (CME) refractory to current standard topical treatment was enrolled. We report the functional and anatomical outcome after subsequent intravitreal aflibercept injections in a patient with CME related to Irvine-Gass syndrome.
Methods: Interventional case report.
Results: An 83-year-old woman complained of visual disturbances after uneventful cataract surgery for 1 month OS. FA ad OCT confirmed the diagnosis of pseudophakic CME related to Irvine-Gass syndrome. After one posterior subtenon triamcinolone and three intravitreal monthly ranibizumab injections, CME persisted at the 4-month visit. One intravitreal aflibercept injection was tried. The CMT decreased after 1 month. She chose observation; however, the CMT increased at the 2-month visit. So three intravitreal monthly aflibercept injections were given, The CMT subsided at the last follow-up. There were no ocular or systemic complications related to the intravitreal injections.
Conclusions: Intravitreal aflibercept appeared to be an effective treatment of refractory CME related to Irvine-Gass syndrome. Recurrent macular edema has been observed after only one aflibercept injection but was subsided after 3 subsequent monthly injections. Prospective controlled studies are warranted to compare the long-term safety and efficacy between intravitreal aflibercept and other treatment options in cases of Irvine-Gass syndrome.

PO-100

Choroidal Nevus with Choroidal Detachment Simulating Intraocular Melanoma- Case Report

脈絡膜痣合併脈絡膜剝離疑似眼內黑色素瘤 – 病例報告

林純如，田彭太，陳文祿，林正明，何宜豪，蔡宜佑
中國醫藥大學附設醫院 眼科部

Purpose: We report a case of choroidal nevus and rhegmatogenous RD complicated with macular pucker and choroidal detachment simulating intraocular melanoma.
Methods: Interventional case report.
Results: A 59-year-old woman complained of visual disturbances and superior temporal visual defect for 1 month OS. Funduscopy revealed macular pucker with lower RD and an elevated lesion in the nasal lower quadrant. OCT showed macular pucker with subretinal fluid. B scan ultrasonography showed low to moderate internal reflectivity. FA demonstrated irregular pattern of mixed hypo- and hyperfluorescence in the elevated lesion and dye pooling on the posterior pole in the late phase. CT revealed a 1x0.6x1.3 cm intraocular enhancing mass. PET/CT showed no abnormal 18F-fluoro-2-deoxyglucose uptake. The standardized uptake value was 2.33. The whole body PET/CT did not show any systemic dissemination of tumor. Because the evidence of malignancy was not solid and the patient also sought to improve her vision, the small gauge vitrectomy was performed. A retinal break was found on the slope of choroidal detachment intraoperatively. Specimens were taken through the retinal break. The postoperative MRI revealed no clue of enlargement. Pathology showed no malignancy. The postoperative photo demonstrated attached retina and the retinal break was sealed. The subsequent OCT also showed neither residual epiretinal membrane nor subretinal fluid.
Conclusions: Choroidal nevus and choroidal hemorrhage with detachment should be carefully differentiated from choroidal melanoma. Apart from CT and MRI, PET/CT can assess both anatomical morphology and cell metabolism. Long term follow-up is necessary to establish the final correct diagnosis.

PO-101

Endogenous Endophthalmisis with Concomitant Scler Ulcer: A Case Report

內因性眼內炎合併鞏膜潰瘍之病例報告

夏寧憶，田彭太，陳文祿，林純如，林正明，何宜豪，蔡宜佑，江鈞綺

中國醫藥大學附設醫院 眼科部

Purpose: To present a case with unilateral endogenous endophthalmitis and concomitant sclera ulcer.
Methods: Case report and literature review.
Results: A 64-year-old woman went to ER for fever with visual loss in the left eye. The BCVA was 6/60. Ocular examination revealed hyperemic conjunctiva, corneal edema, hypopyon and blurred fundus. B-scan showed vitreous opacity. Endogenous endophthalmitis was diagnosed as abdominal CT revealed liver abscess. Besides systemic antibiotic therapy, we performed IVI with Vancomycin plus Cefepime immediately. Blood and vitreous cultures yielded Klebsiella pneumoniae 4 days later. She also received topical AV (Amikacin plus Vancomycin) solution Q1H. Twelve hours later, there were moderate cells at anterior chamber without hypopyon. Elevated intraocular pressure was noted. We tapped AV frequency and added anti-glaumatic medication. Swelling eyelid, chemosis and central corneal epithelial defect were found 24 hours after IVI. Orbital CT showed abnormal fluid collection over subconjuntiva area. Initially we recognized it as inflammatory reactions of AV and kept tapping AV frequency. We prescribed topical Cravit, PreForte and Rinderon with AV in day 5. Two days later, persistent chemosis with temporal corneal infiltration were noted. Necrotic tissue over inferior temporal sclera was founded after periotomy. We ceased topical steroid and underwent Amikacin local irrigation daily. As systemic KP infection was under control, she was discharged with clear anterior chamber and fair sclera 1 month later.
Conclusions: In our case, we presumed that the pathogen in vitreous could spread through the minimally invasive tract of needle and infect the adjacent tissue including sclera. We suggest taking precautions in any invasive procedure with meticulous topical steroid usage during treatment course.

PO-102

Bilateral Panuveitis with Positive QuantiFERON Test- Case Report

雙側全葡萄膜炎併 QuantiFERON 陽性之個案報告

何奕瑢，林純如，陳文祿，林正明，田彭太，何宜豪，蔡宜佑
中國醫藥大學附設醫院眼科部

Purpose: Tuberculosis is one of the most important infectious disease worldwide. The prevalence of tuberculosis in uveitis patients varies in the literature between 0.5 and 17%. We present a case of uveitis with positive QuantiFERON, and without any systemic evidence of tuberculosis. We review the literature for the diagnosis and mangement.
Patient and Method: Interventional case report
Results: This 41-year-old Tailand man visited our ophthalmic outpatient department due to fluctuated blurred vision in bilateral eyes and detoriated for recent 2 weeks. His BCVA was 0.4,OD and 1.0,OS. Ocular examination showed anterior segment cells in bilateral eyes, macular edema,OD. His laboratory data revealed positive result of QuantiFERON and the TB antigen was 7.14 IU/mL. Chest X ray didn't show evidence of tuberculosis. Topical eyedrop medication with prednisolone acetate Q2H, rinderon A ointment HS, and subtenon injection with triamcinolone acetonide 20 mg were prescribed. Due to concern of tuberculosis, rifinah 600mg QD, ethambutol 800mg QD, pyrazinamide 1500mg QD were prescribed. 19 days later, anterior segment cells and vitreous inflammation subsided and his BCVA improved
Conclusion: QuantiFERON is a helpful diagnostic tool in uveitis patients. We suggest defining the presence of active typical ocular inflammation and a positive QFT—with or without other systemic signs—to be considered as possible Tb-associated uveitis. A full combination of antibiotic therapy, which can be combined with steroids (preferably periocular) in the early phase if needed.

PO-103

A Case of Aflibercept with Treatment-Naïve Hemicentral Retinal Vein Occlusion: Six months Follow up

一例 Aflibercept 用在未曾接受治療半側性視網膜靜脈阻塞之六個月追蹤報告

田彭太，陳文祿，林純如，林正明，何宜豪，蔡宜佑
中國醫藥大學附設醫院 眼科部

Purpose: To report our preliminary experience of Aflibercept with treatment-naïve hemicentral retinal vein occlusion(HCRVO) during 6-month-period of follow up.
Methods: Case report and literature review.
Results: A 63-year-old female was diagnosed as unilateral HCRVO by fluorescein angiogrphay(FAG). The best corrected visual acuity(BCVA) was 6/60 in the affected eye and 20/20 in the other eye. Macular edema(ME) was also noted by optical coherence tomography(OCT). The BCVA improved to 6/15 with complete subretinal fulid(SRF) resolution after first intravitreal Aflibercept 2.0mg. We planned the regimen as two loading doses monthly followed with *pro re nata*(PRN) treatment protocol. The patient returned and underwent OCT examinations monthly. The BCVA declined to 6/60 with presence of SRF 3 months after the second loading treatment. The SRF still disappeared after the third intravitreal injection. The BCVA returned to 6/15 again.
Conclusions: Our preliminary experience shows that

Aflibercept is very effect in HCRVO about visual acuity improvement and subretinal dryness. Though ME recurred in 12 weeks, SRF resolved very quickly after another PRN injection.

Strabismus & Pediatric Ophthalmology

PO-104

Selective Ophthalmic Arterial Injection of Melphalan for Intraocular Retinoblastoma: Four-Year Review

眼動脈注射 Melphalan 用於視網膜母細胞瘤之治療：四年案例回顧

王玨 [1], 趙安年 [1], 黃浩輝 [2], 劉冠麟 [1], 高玲玉 [1]
[1] 林口長庚醫院 眼科部, [2] 林口長庚醫院 影像診療科部

Purpose: To describe tumor response and complications following selective ophthalmic arterial injection (SOAI) of melphalan used in intraocular retinoblastoma.
Methods: A retrospective review of 17 eyes (12 patients) treated with SOAI of melphalan from January 2010 to December 2013 in Chang Gung Memorial Hospital.
Results: SOAI was successfully performed in 49 of 54 attempts. Six eyes underwent SOAI as primary treatment and 11 eyes were treated with other treatment modalities before. Following SOAI, tumor regression was noted in 12 of 17 (71%) eyes and vitreous seeding with complete or partial regression was noted in 10 of 15 (67%) eyes. Globe salvage was achieved in 10 of 17 eyes (59%), with 3 of 4 (75%) in group B and C eyes, and 7 of 13 (54%) in group D and E eyes. No systemic side effect was found after the procedure. Twelve eyes (71%) had local side effects including lid edema in 2 (12%), third cranial nerve palsy in 2 (12%), chorioretinal atrophy in 6 (35%), retinal arterial occlusion in 3 (18%), retinal detachment in 1 (6%), and vitreous hemorrhage in 7 (41%). Three cases with high-risk features on histopathologic exam had metastatic disease and two of them died despite adjuvant chemotherapy following enucleation.
Conclusions: SOAI of melphalan is an effective treatment for intraocular retinoblastoma, achieving a high globe salvage in advanced disease. It can be associated with significant ocular complications. SOAI could also increase the risk of metastasis when used in high-risk case. Clinicians should consider the benefits and potential risks and use this new technique with caution.

PO-105

Changes in Intraocular Ocular Pressure and Refractive Status after Pharmacologic Cycloplegic Mydriasis in Children

小孩經由藥物麻痺睫狀肌後之眼壓及屈光狀態之改變

洪國磯, 黃修眉, 林蓓雯
高雄長庚紀念醫院眼科部

Purpose: To evaluate the effect of cycloplegic mydriasis with 1% cyclopentolate and 1% tropicamide on the intraocular pressure (IOP) and refractive status of children for regular eye examinations and compare the IOP and refractive changes between hyperopic and myopic groups.
Methods: This study was designed as a retrospective cohort study. Seventy-five children received cycloplegic mydriasis. The IOP was measured with non-contact tonometer before cycloplegics administration. One drop of 1% cyclopentolate was administered, which was followed by two drops of 1% tropicamide at an interval of 5 minutes. The IOP was then measured 30 minutes after tropicamide instillation. Autorefraction was also assessed by an auto kerato-refractometer before and after cycloplegic mydriasis.
Results: The mean age of the 34 girls and 41 boys was 7.3 ± 2.5 years. The mean pre-cycloplegic IOP was 14.31 ± 2.36 mmHg and the mean post-cycloplegic IOP was 14.78 ± 2.84 mmHg in all eyes. It showed a significant difference in the IOP change. In the 32 hyperopic eyes, the mean pre-cycloplegic and post-cycloplegic IOP values were 14.54 ± 2.85 mmHg and 16.05 ± 3.51 mmHg, respectively ($p < 0.05$). In the 115 myopic eyes, the mean pre-cycloplegic and post-cycloplegic IOPs were 14.35 ± 2.31 mmHg and 14.59 ± 2.89 mmHg, respectively ($p = 0.53$). There was no significant IOP changes after cycloplegic mydriasis in myopic groups. As compared to the pre-cycloplegic and post-cycloplegic IOP values, there was significant difference between hyperopic and myopic groups in post-cycloplegic IOP ($p = 0.003$). Four eyes of two children (2.67%) had an IOP elevation more than 5.0 mmHg after cycloplegic mydriasis. Post-cycloplegic refractive changes showed significant hyperopic shifts in all eyes ($p < 0.0001$).
Conclusions: Cycloplegic mydriasis with 1% cyclopentolate and 1% tropicamide caused significant IOP changes in preschool and school-aged children with hyperopia during visual examinations, but only four eyes in our study have an IOP elevation greater than 5 mmHg. We also found a hyperopic shift after cycloplegic mydriasis in these children.

PO-106

Ocular presentation of CHARG syndrome: A case report

CHARGE 症候群之眼部表現：病例報告

梁巧盈 *，鄭元韶，王俊元，沈應誠
台中榮民總醫院 眼科部

Purpose: CHARGE syndrome is an autosomal dominant or sporadic disorder. Heterozygous CHD7 mutations have been identified as the genetic etiology. This symdrome is characterized with the dominant features: coloboma, heart disease, Atresia choanae, retarded growth and development, genital and urinary abnormalities, ear anomalies and deafness. We report a patient with CHARGE syndrome diagnosed on the basis of specific clinical features and confirmed by genetic testing.
Methods: Case Report.
Results: We present a female infant with CHARGE syndrome with coloboma, atresia choanae, retarded psychomotor development, hearing impairment and hypothyroidism. CHD7 gene mutation was confirmed by sequence analysis. The ocular examination revealed bilateral asymmetrical coloboma of iris and optic disc with poor visual function. Multidisciplinary medical care has been offered to the baby for functional rehabilitation.
Conclusions: Our report emphases the importance of a very early diagnoses in order to start the proper management measures.

PO-107

Myelinated Retinal Nerve Fibers Associated with High Myopia and Amblyopia

髓鞘化視網膜神經纖維合併高度近視與弱視

蔡紫薰，張逖文
國立臺灣大學附屬醫院 眼科部

Purpose: To report three cases of unilateral extensive myelinated retinal nerve fibers (MRNF) associated with high myopia and amblyopia.
Method: Retrospective observational case series.
Result: Three patients (M:F=2:1), without systemic disease or developmental disability, were found to have unilateral extensive MRNFs with high myopia and amblyopia. The average age of the patients at diagnosis was 4.25 (range 3.33~5.58) year-old. The mean spherical equivalent of the involving eye was -6.83 (range -4.0~-9.5D) diopters with corrected visual acuity of 20/200 or under. Dilated fundoscopy examination showed extensive retinal nerve fibers myelination extended from optic nerve head, with variant degree of macula involvement. Spectacles correction and occlusion therapy were given. After a mean follow up period of 11.3 (range 6~21) months, the final visual acuity was ranged 20/50~20/20.
Conclusion: MRNF is not uncommon, with a prevalence rate about 1% and might be related to abnormal migration of oligodendrocytes during embryogenesis. Although asymptomatic in most cases, MRNF may be associated with other ocular and systemic abnormalities, and may be combined with axial myopia and amblyopia in extensive cases.

PO-108

Clinical presentation and management of isolated inferior rectus muscle paresis- a case report

單一下直肌麻痺之臨床表現與治療 - 病例報告

簡毓嫻，劉耀臨
亞東紀念醫院眼科

Purpose: To describe the clinical features, image findings and management of isolated inferior rectus muscle paresis.
Methods: Case report.
Results: A 60-year-old man came to our clinic due to vertical diplopia for 2 years. He had hypertension and diabetes mellitus for many years. Right facial palsy was noted for 8 years, and he had bilateral levator muscle resection for ptosis 4 years ago. There was no history of orbital trauma. Prism cover test at primary position showed 33 Δ right hypertropia. Three-step test showed right inferior rectus muscle weakness. Forced duction and force generation test on right eye showed only infraduction weakness without restriction. No specific finding on the chest plain film and orbital computed tomography was noted. Laboratory data showed no evidence of myasthenia gravis, autoimmune disease, or thyroid dysfunction. Isolated inferior rectus muscle paresis with undetermined underlying cause was diagnosed. The patient received right superior rectus muscle recession and right inverse Knapp procedure. Successful restoration of eye alignment at primary position was noted postoperatively.
Conclusions: Isolated inferior rectus paresis is rare and has been described in association with orbital trauma, orbital adhesive disease, myasthenia gravis, and complication of ocular surgery. Careful clinical examination, image study, and laboratory study are necessary for etiologic differentiation and successful treatment.

PO-109

Bilateral Microspherophakia and Posterior Lenticonus in a Case of Congenital Cataract

一例兩側先天性小水晶體併後圓錐白內障

史敏秀，黃福進
國立成功大學附設醫院

Purpose: To present a case of congenital cataract with bilateral microspherical lens.
Methods: Case report.
Results: An infant presented wondering eyes and white pupils since born. Bilateral cataract was diagnosed and he was referred. Before operation, bilateral microspherophakic cataract was noted. The lens diameter was smaller than the dilated pupil and the zonular fibers were visible through the entrance of the pupil. Several iris strands attached to the lens surface. Following anterior capsulotomy and aspiration, posterior lenticonus cataract was found and removed by anterior vitrectomy. Postoperatively, glasses were prescribed and intraocular pressure was well controlled with 2% carteolol. He was followed at pediatric clinic to rule out systemic associations such as Weill-Marchesani syndrome.
Conclusions: Congenital cataract is rare, microspherophakia and posterior lenticonus is even rare. It is impossible to preserve the lens capsule for secondary implantation of intraocular lens. Glaucoma control and visual rehabilitation is important postoperatively.

PO-110

Clinical characteristics of high grade foveal hypoplasia with infantile nystagmus syndrome

高度黃斑中央凹發育不良併嬰兒眼球震顫症候群之臨床特徵

蕭淑方，史敏秀，黃福進
國立成功大學附設醫院 眼科部

Purpose: To report the clinical pictures and optical coherence tomography examinations in three cases with high grade foveal hypoplasia.
Methods: Case report.
Results: Three children had regular follow up for amblyopia and infantile pendular nystagmus for several years. Their corrected visual acuity ranged from 20/60 to 20/200 in both eyes. One child had ocular albinism with macula spared and alternating exotropia. Another child showed iris hypopigmentation, high hyperopia, and alternating exotropia. The other one had normal anterior segment without strabismus and marked refractive errors. All of them have normal optic discs, but do not have macular pigmentation and foveal reflexes in both eyes. High grade foveal hypoplasia is proved by spectral-domain optical coherence tomography scans. Pedigree charting of one child shows a suspicious of X-linked inheritance pattern of infantile nystagmus. For the other two children, there is no similar condition in their extended family.
Conclusions: High grade foveal hypoplasia is very rare and tends to result in poor visual acuity. It may occur in isolation or in association with other ocular abnormalities, such as aniridia, albinism, achromatopsia, microphthalmus, and retinopathy of prematurity. Therefore, careful ophthalmologic examination should be done when assessing infantile nystagmus.

PO-111

Strabismus in children with high hyperopic anisometropic amblyopia

高度遠視性不等視之弱視孩童的斜視

陳婉如，史敏秀
國立成功大學附設醫院 眼科部

Purpose: To demonstrate the presence of strabismus in children with high hyperopic anisometropic amblyopia.
Methods: Children under 10 years old with more than one-year follow up for amblyopia due to hyperopic anisometropia greater than 2 diopters (D) were eligible. Ophthalmic data was analyzed retrospectively.
Results: Among 15 children (37.5%) presenting strabismus at the first visit, 12 (30%) of them were esodeviation. Four children had accommodative esotropia, six children had esophoria, and the other two patients had non-accommodative esotropia with deviating angle of 12 and 14 prism diopters (PD) respectively. Of the three children with exodeviation, two patients were exophoric and the other one had progressive exotropia with deviating angle of 30 PD at last. There was no significant difference of the magnitude of anisometropia between esodeviation and non-esodeviation. No significant differences of BCVA and the extent of hyperopia were noted among esodeviation, exodeviation, and not strabismic groups. Strabismus was not a significant risk factor for treatment outcome (P=0.576).
Conclusions: A high prevalence of esotropia was noted including accommodative and non-accommodative types. Treatment outcome was not related to the presence of strabismus.

PO-112

Genetic study of an atypical retinoblastoma case

一個非典型視網膜胚母細胞瘤病例的基因研究

楊怡慧，李仲哲，潘怡潔，黃修眉，郭錫恭
高雄長庚紀念醫院 眼科

Purpose: To report the results of genetic testing in an atypical retinoblastoma (RB) case.
Method: A case report and literature reviews
Results: A 5-year-old boy without family history of RB presented with whitish materials in the left eye. The ocular exam revealed elevated IOP to 34 mmHg, pseudohypopyon, large white keratic precipitates and

vitreous opacity as snowballs and snowbanks. The B-scan and orbital CT showed soft tissue density in inferior vitreal cavity instead of typical calcification in RB. The histopathological analysis of the enucleated eyeball showed poorly differentiated RB with tumor invasion involving retina, choroid, sclera, ciliary body, trabecular meshwork, iris and corneal endothelium as a rare diffuse infiltrating type. DNA from the patient was obtained from whole blood and the tumor for further genetic study. Amplification of individual exons of the RB1 gene were carried out, followed by direct sequencing of the amplified products. A 22-base pair-long insertion was found in exon 23 of RB1 gene in both peripheral blood and tumor samples, indicating a germline mutation which will be passed on to the next generation.
Conclusion: RB is a special disease with single genetic mutation predicting disease development at high penetrance. The heriditary of RB influences the RB phenotype, predisposes second tumor, and determines the passage to the future offspring. Genetic testing and counseling should be provided for optimal clinical management of RB.

PO-113

A Case of Exotropia with Depigmented Iris and Unequal Retina Pigmentation

一例外斜視合併虹膜色素脫落及不對稱視網膜色素表現

何宜豪，謝宜靜，夏寧憶，崔永平，蔡宜佑，林慧茹
中國醫藥大學附設醫院眼科部

Purpose: To present a case of bilateral iris depigmentation with unilateral hypopigmented fundus
Method: A 30-year-old oriental man presented with bilateral diffuse iris depigmentation (fig.1 and 2) since childhood. His best corrected visual acuity was 20/20 in the bilateral eyes, and the intraocular pressure was 17, od and 15, os. Exotropia about 70 prism both at near and far distance was noted. Fundus exam revealed hypopigmented fundus without foveal hypoplasia (fig.3) in the left eye, whereas the right eye was grossly normal (fig.4). The cornea and lens was clear. Gonioscope showed open angle with no pigment deposition. Neither anterior chamber reaction nor keratic percipitates was found. There was no cutaneous lesion, hypopigmented scalp hair, decreased platelet or other systemic involvements. The patient mentioned no family history, current trauma like infraded red radiation or use of systemic drugs such as Moxifloxacin.
Results: The clinical picture of iris depigmentation in this patient was distinct from other causes such as viral keratouveitis, Fuch' s heterochromic iridocyclitis, pigment dispersion syndrome and exfoliation syndrome. Because of the hypopigmented fundus with normal visual acuity, albinoidism may be the possible diagnosis in spite of the fundus involvement was unilateral. If cutenous lesions are found, systemic disease like oculocutaneous albinism, Waardenburg syndrome, Chédiak–Higashi syndrome and Hermansky-Pudlak syndrome are other considerations.
Conclusion: Iris depigmentation associated with hypopigmented fundi is usually bilateral. This is an interesting case of bilateral iris depigmentation with unilateral fundus involvement. Long-term follow and chronic observation of the other eye with normal pigmented fundus and systemic status are necessary to identify the etiology.

PO-114

Central Retinal Artery Occlusion as Initial Presentation in Hemolytic Uremic Syndrome

以中心視網膜動脈阻塞為起始表現的溶血性尿毒症候群

何宜豪，夏寧憶，謝宜靜，崔永平，蔡宜佑，林慧茹
中國醫藥大學附設醫院眼科部

Purpose: We report a case of hemolytic uremic syndrome (HUS) with initial presentation of central retinal artery occlusion (CRAO).
Method: A 21-year-old woman presented with blurred vision in the bilateral eyes for one week. Her best corrected visual acuity (BCVA) was 0.9 in the right eye and 0.1 in the left eye. The ocular examination revealed cherry-red spot, flame-shaped intraretinal hemorrhages, and retinal artery constriction, in accordance of the clinical picture of CRAO. One month later, impaired liver and renal function, anemia, thrombocytopenia developed, and her BCVA dropped to hand movement (HM) at 20 cm in the right eye and counting finger (CF) at 20 cm in the left eye.
Results: Under the impression of CRAO, peripheral retinal photocoagulation (PRP) was performed in bilateral eyes. After HUS was diagnosed, plasma exchange, steroid, and azathioprine were administered. Then the liver and renal function, anemia and thrombocytopenia were improved. However, her BCVA was remained CF at 15 cm in the right eye and 0.01 in the left. Fundus exam showed pale optic disc and artery sheathing 7 months after initial presentation (Fig. 2).
Conclusion: Patients of HUS usually present with diarrhea in the beginning of clinical process and have prominent renal dysfunction later. Ocular involvement in HUS seems to be rare. Signs of retinal ischemia and intraretinal hemorrhage had been reported before, but bilateral CRAO as initial presentation in HUS had not been reported.

Uvea & Others

PO-115

Cytomegalovirus retinitis in malignant lymphoma: A case report

巨大病毒細胞視網膜炎合併惡性淋巴瘤之病例報告

莊秋同，吳宗典，許淑娟
高雄榮民總醫院眼科部

Purpose: To report an uncommon case of cytomegalovirus (CMV) retinitis associated with malignant lymphoma
Methods: Case report and literature review
Results: A 45-year-old male presented with decreased acuity in his left eye. One and half years previously this patient was diagnosed with malignant lymphoma and received chemotherapy. At presentation, his best-corrected visual acuity (BCVA) was 6/7.5 in the left eye and 6/6 in the right eye. There were no anterior chamber reactions in both eyes. Examination of the fundus revealed retinal necrosis patches and several hemorrhages in the upper retina. Some vessels displayed extensive white sheathing resembling frosted branch angiitis. CMV retinitis was impressed, and subsequent aqueous PCR showed positive result for CMV DNA. After treatment with oral valganciclovir for 3 months, the retinal lesion was completely disappeared and BCVA returned to 6/6 in his left eye. There was no recurrence during the follow-up period.
Conclusion: Although the reported incidence of infection with CMV in patients with malignant lymphoma is low, it may be increasing in the future. Early diagnosis and treatment is important for the visual prognosis.

PO-116

Manpower of Ophthalmologists in Taiwan

台灣眼科醫師人力資源

許紋銘 (Wen-Ming Hsu)，林孟穎，吳嘉敏，李佩蓉
臺北醫學大學雙和醫院 眼科

目的：整理分析台灣 50 年來的眼科醫師人力資源。
方法：收集眼科醫學會及醫師公會全聯會資料，統計分析。
結果：1960 年全台灣地區大約只有 80 眼科醫師。其後 20 年間，每年約有 10 至 15 位「新血」加入。1980 至 1990 年之間眼科醫師急速增加，每年約增加 50 至 80 位。1990 年起，每年限制招收 42 至 46 名新進住院醫師。2000 年之後，醫師人力增加速度漸緩和，每年約增加 30 至 36 名。2012 年 12 月，全台灣地區有 1670 名眼科醫師（執業登記）。眼科醫師佔全國醫師數 4.26%。每十萬人口眼科醫師數 1995 年 5.26 人；2000 年 6.03 人；2005 年 6.56 人；2010 年 7.18 人。但是城鄉差距仍大（台北市 15.04 人，高雄市 9.22 人，苗栗縣 2.67 人，金門縣 2.06 人）。依服務型態來分，全國眼科醫師約 57.6% 為基層醫師 (2010 年為例)。性別而言，女性眼科醫師的比率為 32.6%。年齡而言，眼科醫師 50 歲以下佔 71.2%
結論：台灣眼科醫師人力已經足夠（每十萬人口眼科醫師數 7.18 人），但是城鄉差距仍大。女性眼科醫師的比率 (32.6%) 比全國女性眼科醫師的比率 (16.1%) 高。基層醫師的比率，眼科醫師 (57.6%) 高於全國醫師的比率 (29.6%)。

PO-117

A Study on Evidence-based Medicine Applied to Medical Civil Action

實證醫學運用於醫療民事訴訟之研究

蔡健光
台南京城眼科診所，樹人醫專視光科

目的：實證醫學在我國的發展已逾 10 年，其在訴訟證據上角色的重要性，根據問卷調查，醫界 (76%) 及法界 (86 %) 已有相當高的比例認同，然在實際訴訟案件的應用情形又是如何？
方法：本實證研究主要是針對民國 92 年至民國 101 年間，我國醫療民事訴訟案件判決書中，病方、醫方及鑑定報告等三方引用醫學文獻或臨床指引做為攻擊、防禦或鑑定工具的比例，以了解過去 10 年實證醫學對我國醫療糾紛民事訴訟案件的影響。
結果：本實證研究之結果（計 989 份裁判書），其數據經分析並以統計學方法進行差異性（卡方檢定）及相關性（相關係數檢定）運算比較後，可獲得下列幾項結論：（一）研究數據之統計概率值 P 皆≦ 0.05，「具高度可信性」。（二）訴訟雙方上訴比例達近 1/3，表示訴訟的主戰場在第一審及第二審。（三）醫療訴訟案件數比例與各地區人口數比例呈高度關聯性。（四）訴訟中引用實證醫學資料之比例，地方法院為 40.6 %，高等法院經校正後為 13.9 %，二者合計 54.5 %，代表近 10 年，訴訟雙方及鑑定單位以實證醫學資料做為攻擊、防禦或鑑定工具的比例已超過一半。（五）以地方法院為統計基準，鑑定方提出之比例最高（18.4 %），醫方（10.7 %）及病方（11.5 %）則相差無幾。北部（54.4 %）＞南部（21.3 %）＞中部（20.9 %）＞東部（3.4 %），但經統計，此結果與該地區教育資源多寡並無相關性。
結論：(1) 不論是醫療訴訟案件的數量或是實證資料提出的比例皆以北部地區為最高，此與地區人口數有相關但與教育資源多寡無關。(2) 過去十年來，實證醫學資料提出之比例已超過一半，達 54.5 %，雖病方提出之資料嚴謹度較不足，然仍顯示我國醫療訴訟各方重視科

學證據的情形已有進步。

PO-118

Pending hypovolemic shock caused by Topical ophthalmic anesthetic eyedrop : Alcaine : A case report

Alcaine 導致的近低血容休克：病例報告

蔡明輝，官珮慈
彰化秀傳紀念醫院 眼科部

Purpose: To report a case of pending hypovolemic shock caused by Alcaine
Methods: A case report
Results: A 10 year-old-girl came for orthokeraroplasty evaluation. No systemic disease, no other concomitant illness presented then. Prior to fitting trials, topical anesthetic eyedrops as Alcaine was given. Chest tightness, dyspnea was complained right after applying eyedrops. Near-syncope with remarkable hypotension were observed.
Conclusions: Alcaine usage is extremely common in ophthalmic practice. Though severe drug reaction seldom developed. Emergent resuscitation equipment should be available all the time.

PO-119

Extracellular vesicles in aqueous humor

紙型免疫吸附裝置

沈秉衡[1]，王俊元[2]，沈應誠[2]，許閔彥[23]
[1] 普愛眼科診所 [2] 台中榮民總醫院眼科部 [3] 國立清華大學奈米工程及微系統研究所

Purpose: Using paper-based immunoaffinity devices and following scanning electron microscope to detect extracellular vesicles from aqueous humor.
方法：系列病例報告，蒐集從四個病人在開白內障手術時流出之前房液，利用奈米級方式包括透過經由化學性修飾且具特定抗體鍵結紙片平台進行前房液中胞外囊泡 (Extracelluarvesicles) 之捕捉，並利用掃描式電子顯微鏡 (SEM) 進行影像分析胞外囊泡的特徵
結果：
被抓住在紙上的胞外囊泡 (EVs) 形態上利用電子顯微鏡 (SEM) 來分析後，發現因不同表面標記 (surface marker, CD63 及 Annexin V) 而小分類不同的的胞外囊泡 (EVs) 在大小上 (p-value < 2.4×10 -22) 及環狀性 (circularity) 上 (p-value < 3.6×10-9) 皆有顯著的差異 .
結論：
我們相信這樣奈米級方式的裝置可以有更廣在基礎生物學及臨床眼科學上的應用。 我們也會進行青光眼病人前房液的研究

PO-120

Choroidal Metastasis of Non-Small Cell Lung Cancer: A Case Report

脈絡膜非小細胞肺癌轉移 - 病例報告

郭淑純，李孟昇，柳景鼐，張欣怡
奇美醫學中心永康院區 眼科部

Purpose: Metastatic tumors are considered to be the most common malignancy of the eye. Choroidal metastasis is the most common intraocular malignancy. Herein, we reported a case of choroidal metastatic lesion in the right eye from non-small cell lung carcinoma with blurred vision as first manifestation.
Methods: Case report
Results: This 49-year-old man with history of hypertension and coronary artery disease got blurred vision in his right eye. Series examines showed exudative retinal detachement due to choroidal mestastatic lesion, whose primary origin was then proven to be non-small cell lung carcinoma.
Conclusions: Never forget that choroidal metastasis is the main cause of exudative retinal detachment. Sometimes like our case, ophthalmologist might be the first doctor who makes the new diagnosis of malignant tumor with distant metastasis.

PO-121

Regression of Multiple Choroidal Metastases from Breast Carcinoma using Taxol

使用紫杉醇治療多發性乳癌膜轉移之脈絡膜腫瘤之病例報告

林孟穎
衛生福利部雙和醫院

Purpose: to present a case of breast cancer with choroidal metastases
Methods: A case of stage 4 breast cancer with multiple organ metastases suffered progressive blurred vision. Visual acuity, fundus exam, macular optical coherence tomography (OCT), FAG, ICG and visual field exams were then performed.
Result: Multiple choroidal metastases from breast carcinoma in both eyes were noted at first examination. The optical coherence tomography showing subretinal fluid in the fovea. The FAG revealed The stippling hyperfluorescent leakage and hyperfluorescent pooling from RPED and SRF. The ICG showed blockage of the background staining but no Intratumoral vessels could be detected. As she also had brain, lung and liver metastases, chemotherapy with Taxol was suggested. Following 3 months of treatment with Taxol, she

regained 20/20 vision. Choroidal metastases regressed gradually. The subretinal fluid and choroidal undulation vanished on OCT. the hyperfluorescent leakage also disappeared in FAG
Conclusions: Patients with breast cancer, especially those with more advanced stages, should accept routine ocular exams.

PO-122

Sarcoidosis with multiple organs involvement: A case report

類肉瘤合併多器官侵犯之病例報告

許祺鑫
臺北醫學大學雙和醫院 眼科

Purpose: To report one case of sarcoidosis with multiple organs involvement
Method: Review medical chart, clinical features and make case report.
Result: A 58-year-old female patient, with the definite diagnosis of pulmonary sarcoidosis since 15 years ago, complained of dry eye sensation, epiphora, and floaters for a long time. After complete ophthalmologic examination, dry eye syndrome, nasolacrimal duct obstruction, preretinal nodules, choroidal nodules and retinal granuloma was found. After chart reviewing, the patient had sarcoidosis with multiple organs involvement: 1. Pulmonary involvement: numerous enlarged lymph nodes and noduloreticular nodules, 2. Renal involvement: nephrolithiasis and nephrocalcinosis, 3. Liver involvement: liver nodule, 4. Breast involvement: multiple calcifications, 5. Colon involvement: colon polyps. Now the patient is still under follow up.
Conclusion: Sarcoidosis is a multisystem granulomatous disease, and the organs affected more often are the lungs, skin and eyes. We reported one case with at least 6 organs involved. Clinical symptoms, systemic conditions and image findings were described. Regular follow up is necessary.

PO-123

Vogt–Koyanagi–Harada syndrome mimicking acute angle closure glaucoma initially

原田氏症以急性隅角閉鎖青光眼為初始表現 --- 病例報告

葉伯廷，林暄婕，林昌平
國立台灣大學醫學院附設醫院 眼科部

Purpose: To report a case with Vogt–Koyanagi–Harada (VKH) syndrome mimicking acute angle closure glaucoma initially.
Methods: A case report
Results: A 51 year-old lady without any systemic disease was referred to our hospital due to poor response to laser iridotomy for bilateral acute angle closure attack. Before her presence, upper respiratory infection symptoms, headache, tinnitus, vertigo, and painful blurred vision were noticed. Bilateral acute angle closure attack was diagnosed at other hospital. Intraocular pressure decreased after laser iridotomy, but anterior chamber remained shallow and blurred vision progressed. Bilateral exudative retinal detachment (RD) was found and she was referred to our hospital. At our hospital, her corrected vision was 20/200 in right eye and 20/100 in the left eye. Her initial ocular examination showed injected conjunctiva, some pigmented keratic precipitates, shallow anterior chamber with moderate reaction, multifocal exudative RD in both eyes. Ultrasound biomicroscopy (UBM) demonstrated peripheral choroidal effusion, ciliary body effusion with secondary angle closure. Fluorescein angiography revealed diffuse pinpoint leakage. Steroid pulse therapy was given for 3 days and shifted to oral prednisolone then cyclosporine for 3 months in total. During the 6-month follow-up, visual acuity returned to 20/20 in both eyes with total resolution of subretinal fluid.
Conclusions: VKH syndrome can induce uveal effusion and secondary angle closure glaucoma. UBM can provide precious information and it is crucial to examine the fundus in patients with acute angle closure attack.

PO-124

Immune recovery uveitis after treatment of CMV retinitis: A case report

巨細胞病毒視網膜炎治療後併發免疫恢復性葡萄膜炎之案例報告

林昌平，劉芳瑜
國立台灣大學醫學院附設醫院 眼科部

Purpose: To report the clinical features and treatment of a patient who suffered from immune recovery uveitis after anti-viral treatment of relapsed CMV retinitis.
Methods: A case report.
Results: A 42-year-old man with angioimmunoblastic T cell lymphoma who suffered from sustained CMV viremia resistant to Valacyclovir treatment after receiving allo-peripheral blood stem cell transplantation. He suffered from blurred vision in both eyes and fundus exam disclosed classic CMV retinitis. Infection was controlled with Foscarnet. But relapsed CMV retinitis was noted 2 weeks after discontinuing Foscarnet. He received 2 doses of invitreal injection of Ganciclovir once in a week. Ocular examination revealed moderate vitritis without active CMV retinitis. A diagnosis of

immune recovery uveitis (IRU) was made. Anti-viral agents were discontinued and the patient responded to the treatment with topical,systemic, and sub-Tenon injection of steroid. However, there was alternatively recurrent episodes of acute CMV retinitis and immune recovery uveitis after treatment. There was also 360 degrees posterior synechia and posterior subcapsular cataract formation in both eyes after recurrent IRU.
Conclusions: Immune recovery uveitis (IRU) is an intraocular inflammation which can occur after successful treatment of cytomegalovirus (CMV) retinitis and is linked to spontaneous or pharmacologically induced recovery of immunity. Alternatively recurrent episodes of IRU and CMV retinitis put clinical management of control infection or suppress immunity to decrease inflammation to a dilemma.

PO-125

The mechanism of ameliorated experimental autoimmune uveoretinitis in Ncf1 knock-out mice

探討在 *Ncf1* 基因突變小鼠僅能誘發減弱之實驗性自體免疫葡萄膜視網膜炎的作用機轉

許聖民 [1,2], 林佳貞 [1], 謝奇璋 [2]
[1] 國立成功大學附設醫院 眼科部 [2] 國立成功大學醫學院 臨床醫學研究所

Purpose: The *Ncf1* protein is an essential component of the NADPH oxidase complex that catalyzes the transfer of a single electron from NADPH to oxygen and generates ROS. In this study, we want to study the mechanism of ameliorated experimental autoimmune uveoretinitis in *Ncf1* knock-out mice.
Methods: We adoptively transferred $CD4^+$ T cells from wild type EAU mice to naïve *Ncf1* mutant or wild type mice to induce EAU response. Besides, we also adoptively transferred $CD4^+$ T cells from $Ncf1^{-/-}$ EAU mice to naïve $Ncf1^{-/-}$ or wild type mice to induced EAU response. We compared the pro-inflammatory cytokine expression of retinas from $Ncf1^{-/-}$ and wild type EAU mice by ELISA and immunohistocytology staining.
Results: Adoptively transfer of $CD4^+$ T cells from $Ncf1^{-/-}$ EAU mice induced ameliorated EAU response in naïve wild type mice, and adoptively transfer of $CD4^+$ T cells from wild type EAU mice also induced ameliorated EAU response in naïve $Ncf1^{-/-}$ mice. It means the *Ncf1* expression in both $CD4^+$ T cells and retinal microenvironment is important in EAU induction. By ELISA, the expression of pro-inflammatory cytokine, TNF-α, was much lower in retina from *Ncf1* mutant EAU mice than those from wild type EAU mice.
Conclusions: Both $CD4^+$ T cells and retinal microenvironment with normal *Ncf1* gene expression are necessary for EAU induction. Modulating *Ncf1* proteins is a new method to treat autoimmune uveoretinitis diseases in human in the future.

PO-126

Secondary open-angle glaucoma in sarcoidosis --- A case report

類肉瘤症病患之次發性隅角開放型青光眼 --- 案例報告

陳芳婷
新北市板橋亞東紀念醫院 眼科部

Purpose: To report a patient of sarcoidosis complicated with intermittent high intraocular pressure (IOP) spikes in a normal-looking open angle and in the absence of severe anterior chamber inflammation.
Methods: A case report
Results: A 59-year-old lady suffered from blurred vision in the right eye for 1 month. Her visual acuity was 20/200 and the IOP was up to 50mmHg in the right eye at the first visit. Ocular examination revealed few mutton-fat keratoprecipitates at cornea, trace cell in the anterior chamber, and dense vitritis. Gonioscopy showed a wide open angle with only a small amount of posterior anterior synechiae. The left eye was generally normal. She was also a patient of sarcoidosis suspected by typical hilar adenopathy in chest radiograph and high resolution CT (HRCT). The IOP returned to normal range under the treatment of antiglaucoma agents and topical and systemic corticosteroids for 1 week. The visual acuity was improved to 20/25 with marked resolution of vitritis after steroid use for 1 month, and we tapered the steroid in 2 months. However, recurrent attack of IOP elevation (up to 47mmHg) occurred 1 year later. The condition was under control again by medications. However, the optic disc showed some glaucomatous damage after recurrent attack. We kept antiglaucomatous agents for long-term use.
Conclusions: Intermittent elevation of IOP may occur in patient with sarcoid uveitis even in the absence of prominent anterior chamber inflammation and a normal-looking angle. Schlemm canalitis has ever been proposed as a possible etiology. Long-term follow-up of IOP is needed in these patients.

PO-127

Vogt–Koyanagi–Harada Disease in Eastern Taiwan

東台灣 Vogt- 小柳 - 原田病研究

李岳章, 林淑芳, 何明山, 李原傑
花蓮慈濟醫院

Purpose: To describe the clinical characteristics, treatments and visual outcomes of Vogt-Koyanagi-Harada disease in Eastern Taiwan.
Methods: A retrospective chart review of VKH disease

at our institution from 2004 to 2013. Electronic records and charts were reviewed for age, sex, length of follow-up, diagnostic criteria at presentation, disease stage at presentation, duration of symptoms before presentation, ocular and extraocular manifestations at presentation, treatments, compliance, and visual outcomes.
Results: A total of eight patients were included in this study. 62.5% were female, and the average age at presentation was 34.9 years. All presented with blurred vision. Choroiditis with serous retinal detachment (100%) and anterior segment inflammation (75%) were the most common signs. Six (75%) patients had extraocular manifestations, the most common being headache (62.5%). All patients were treated with corticosteroids. 25% of patients had difficulty attending follow-up appointments. The mean improvement in visual acuity was -0.26 LogMAR.
Conclusions: The features of Vogt-Koyanagi-Harada disease in Eastern Taiwan are similar to other epidemiological studies of Asian and Hispanic patients. Despite initial response to corticosteroid treatment, long term follow up might show drop-out of retinal pigment epithelial cells with sunset glow pictures.

PO-128

A 3-year follow-up study on the risk of stroke among patients with conjunctival haemorrhage

結膜出血與中風之相關研究

王宗仁，黃曼菁，何昭德，林恆慶
臺北醫學大學附設醫院眼科部

Purpose: To the best of our knowledge, no large population-based studies on the relationship between conjunctival haemorrhage and stroke have been conducted to date. Using a nationwide population-based data set, this study investigated the relationship between conjunctival haemorrhage and the subsequent risk of stroke within a 3-year period following diagnosis.
Methods: The study cohort consisted of 17,349 patients with conjunctival haemorrhage and 86,745 comparison subjects. Each patient was individually tracked for a 3-year period from their index date to identify all those who had subsequently received a diagnosis of stroke.
Results: The incidence rate of stroke was 2.44 (95% CI = 2.31-2.55) per 100 person-years in patients with conjunctival haemorrhage and 1.63 (95% CI = 1.59-1.68) per 100 person-years in comparison patients. After adjusting for patients' monthly income and geographic location, as well as for hypertension, atrial fibrillation, diabetes, hyperlipidaemia and coronary heart disease, stratified Cox proportional hazards regressions revealed a statistically significant hazard ratio for stroke in patients with conjunctival haemorrhage (HR = 1.33; 95% CI = 1.24-1.42, $p < 0.001$).
Conclusions: In this study, patients with conjunctival haemorrhage were found to be at a significant risk of stroke during a 3-year follow-up period after diagnosis.

PO-129

Primary Vitreoretinal Lymphoma Mimicking Choroidal Melanoma Ultrasonographically – Case report

眼內淋巴瘤在超音波特徵上以類脈絡膜黑色素瘤型態表現 – 病例報告

許詠瑞
亞東紀念醫院

Purpose: To report a case of primary vitreoretinal and CNS lymphoma with initial presentation mimicking choroidal melanoma.
Methods: Case report.
Results: A 70 year-old female presented with blurred vision with floaters over her right eye. Visual acuity was 0.1 (RE) and 0.8 (LE). Biomicroscopy revealed trace vitreous cells, with a large elevating subretinal mass at temporal midperiphery. B-scan ultrasonography showed a dome shaped tumor with hyperechoic surface and low internal reflectivitiy. Fluorescein angiography disclosed RPE change without active leakage. Further surveillance was suggested, however, the patient lost follow-up. She fainted out 6 months later. Brain imaging showed corpus callosum mass with increased intracranial pressure. Craniotomy with tumor excision was done. CNS diffuse large B cell lymphoma was diagnosed. After complete systemic chemotherapy with high dose methotrexate and rituximab, ophthalmic follow-up visit revealed completely regressed subretinal tumors of right eye, with an increased VA to 0.6. However, two months later, dense vitreous cells (+++) with vitreous haze and dropped VA to 0.1 (RE) and 0.3 (LE) was noted. Intraocular tumor recurrence was diagnosed pathologically following diagnostic vitrectomy. Nevertheless, the patient refused further intraocular chemotherapy.
Conclusion: Primary vitreoretinal lymphoma can present as a dome shaped subretinal tumor with ultrasonographic features of choroidal melanoma. Neuroimaging and systemic investigation is warranted.

PO-130

Risk Factors for Developing Glaucoma Among Patients with Uveitis

葡萄膜炎患者產生青光眼的危險因子探討

黃德光，周穎政，蒲正筠，周碧瑟
台中榮民總醫院 眼科部

Purpose: Tried to investigate the incidence and the risk

factors for developing ocular hypertension or glaucoma needing treatment among patients with uveitis in Taiwan.
Methods: The population-based cohort study was designed using the Taiwan NHIRD. All patients who were newly diagnosed as uveitis after January 1st 2002 were identified and followed to the last day in the database to see whether they have been diagnosed as having glaucoma. Risk factors for developing glaucoma were evaluated and discussed.
Results: 5757 patients were enrolled in the study. 488(8.5%) had the first diagnosis of glaucoma as soon as being diagnosed as uveitis, 351 (6.7%) developed glaucoma during the follow-up period. The risk factors included increasing age, diagnosed with anterior uveitis, being prescribed systemic steroids at the first visit, being exposed to more topical steroids, having more additional clinical visits within the first 3 months and presenting complications of developing a cataract or corneal edema.
Conclusions: Several factors are associated with the development of glaucoma among patients with uveitis. Clinicians might pay more attention on those patients specifically.

PO-131

Fungal endophthalmitis caused by Trichophyton spp. after cataract surgery- A case report

毛癬菌屬引起之白內障術後黴菌性眼內炎病例報告

陳清龍 [1], 林哲民 [1,2], 鮑淑怡 [1], 陳怡豪 [1], 陳建同 [1], 呂大文 [1]
國防醫學院三軍總醫院眼科部 [1], 國軍台中總醫院 [2]

Purpose: To describe a case of chronic postoperative fungal endophthalmitis caused by Trichophyton spp. following phacoemulsification with posterior chamber intraocular lens implant.
Methods: A Case report.
Results: A 58-year-old male underwent phacoemulsification with posterior chamber intraocular lens (IOL) implant in the left eye. By postoperative day 30, the patient presented with increased conjunctival secretion and decreased visual acuity in the operative eye. Therefore, delayed-onset postoperative endophthalmitis was diagnosed. Intravitreal antibiotic therapy was performed using vancomycin and amikacin. However, the intraocular infection still progressed. Because of resistance to antibacterial therapy and delayed-onset infection course, fungal endophthalmitis was suspected. Subsequently, a pars plana vitrectomy with amphotericin B irrigation and IOL removal were performed. IOL culture revealed infection with Trichophyton spp. Since the anterior chamber inflammation continued to progress, oral voriconazole (200 mg twice daily) was prescribed on the infectologists' advice. Subsequently by 2 months, the intraocular inflammation was resolved and the patient's best-corrected visual acuity was counting fingers with aphakia.
Conclusions: Trichophyton spp. are a rare cause of postoperative fungal endophthalmitis that can be treated with pars plana vitrectomy using amphotericin B irrigation and oral voriconazole, postoperatively. IOL removal is essential to eliminate the infective burden and help differential diagnosis. Early and effective treatment is essential to salvage the eye and achieve better outcome.

PO-132

Masquerade Chronic Uveitis secondary to Chronic Lymphocytic Leukemia

慢性淋巴性白血病誘發慢性偽虹彩炎－一病例報告

蔡明霖 [1,2], 洪啟庭 [3], 林世民 [1,3], 洪純玲 [4], 呂大文 [1]
[1] 國防醫學院三軍總醫院眼科部, [2] 新北市慈濟醫院眼科部, [3] 國軍高雄總醫院眼科部, [4] 新光醫院眼科部

Purpose: To report an unusual case of CLL masquerading as chronic uveitis in a 80-year-old lady.
Methods: case report.
Results: A 80-year-old woman with long history of chronic uveitis. The patient visited our OPD due to flare-up and visual reduction in the both eye. On examination BCVA was 6/30 in both eyes. Low grade ocular inflammation with posterior synechiae was observed in the both eye. Laboratory examinations were arranged and leukocytosis was noted incidentally. Pathologic report confirmed the diagnosis of CLL with Rai stage II (lymphocyte surface marker: CD5A: strong, CD19A: strong, CD20A: strong). Medications with Leukeran (Chlorambucil) and allopurinol were prescribed. A follow-up three months later, laboratory study of WBC return to normal range and ocular symptoms were improved.
Conclusion: Masquerade uveitis may secondary to CLL. Careful diagnosis and prompt treatment is necessary.

PO-133

Immune-Recovery Uveitis in a Patient With Cytomegalovirus Retinitis After Highly Active Antiretroviral Therapy

免疫恢復性葡萄膜炎在一位接受高效逆轉錄病毒療法的巨細胞病毒性視網膜炎病患

吳嘉敏, 沈筠惇
台北醫學大學部立雙和醫院 眼科部

Purpose: The ocular inflammation associated

with clinical immune recovery in patients taking highly active antiretroviral therapy (HAART) is known as immune-recovery uveitis. The report was to present the clinical features and visual outcome of immune-recovery uveitis in a patient with zone 3 cytomegalovirus retinitis.

Methods: case report

Results: A 34 year old man with acquired immune deficiency syndrome had received HAART for half year. He presented to our clinic because of blurred vision (os).Best corrected visual acuity was 20/40(os) and intraocular pressure was 30mmHg(os). Peripheral retina revealed perivascular whitish granular lesions and faint hemorrhage. Vitritis(cell 3+) and iritis(cell3+) were also noted. After Oral Valganciclovir and topical steroid treatment, The visual acuity returned to 20/25(os).

Conclusions: Immune-recovery uveitis is an important cause of visual morbidity in HIV-infected patients with cytomegalovirus retinitis in the era of highly active antiretroviral therapy. However, early detection and control of the intraocular inflammation can lead visual recovery and discontinuation of the anticytimegalovirus therapy.