

35 ECMO Rescues Children with Life-threatening Mediastinum Tumors

使用葉克膜搶救致死性縱膈腔腫瘤

Tefu Weng¹, Jeng-Sheng Chang¹, Tzu-Yao Chang¹,
Ching-Tien Peng^{1,2}, Kang-Hsi Wu¹

Department of Pediatrics, China Medical University Hospital¹; Department of Biotechnology and Bioinformatics, Asia University²

翁德甫¹、張正成¹、莊子瑤¹、彭慶添^{1,2}、巫康熙¹
中國醫藥大學附設醫院兒童中心¹；亞洲大學²

Background: Mediastinal tumors in children are potentially life-threatening lesions that can present complex diagnostic and therapeutic dilemmas. Aggressively obtaining specimen for diagnosis is important for exact treatment. But sedation for invasive procedure needs carefully evaluation to avoid potential lethal complications. Extracorporeal membrane oxygenation (ECMO) is a recognized technique that provides not only temporary respiratory support for patients with intractable cardiopulmonary failure but also obtains time for diagnosis and treatment.

Methods: We report 4 cases that presented with life-threatening tracheal compression or cardiac tamponade. Three patients suffered from severe cardiogenic shock despite pharmacological treatment and mechanical ventilation. Two of three patients had cardiopulmonary resuscitation followed with emergency ECMO support. The other patient had severe tracheal compression. He received prophylactic ECMO support without sedation and recovered well.

Results: Four patients had thymoma, yolk sac tumor, T-cell lymphoma and posterior mediastinum tumor. Two patients survived without complications after rescue with ECMO and chemotherapy. The other two patients expired because they failed to wean the ECMO.

Conclusions: Children with mediastinal tumors are potentially lethal, especially when they need sedation for invasive procedure or treatment. ECMO offers an important means of cardiopulmonary support in children with hypoxemia and cardiogenic shock that may be suddenly occurred before treatment or at beginning of present.

36 Superior Vena Cava Syndrome Presentation with Emergency Airway Obstruction in Childhood Malignancy: Analysis of Nine Cases

上腔靜脈症候群在兒童惡性腫瘤的病人以緊急的呼吸道阻塞來表現：九個病例的分析

Ho-Shun Ko¹, Chun-Chih Peng², Ming-Ren Chen^{2,3},
Der-Cheng Liang², Hsi-Che Liu², Ting-Chi Yeh², Haw-Kwei Hwang²

Department of Pediatrics, Shuang Ho Hospital, Taipei Medical University¹, Taipei, Taiwan; Departments of Pediatrics, Mackay Memorial Hospital², Taipei, Taiwan; Mackay Medicine, Nursing and Management College³, Taipei, Taiwan

柯和順¹、彭純芝²、陳銘仁^{2,3}、梁德城²、劉希哲²、
葉庭吉²、黃浩魁²

行政院衛生署雙和醫院小兒部¹；台北醫學大學¹；馬偕紀念醫院小兒部²；馬偕醫護管理專科學校³

Background: Superior vena cava syndrome was a rare but dangerous condition in childhood malignancy and need rapid and correct management.

Methods: Method: Nine children with superior vena cava obstruction at initial presentation or associated with disease recurrence were treated at Mackay Memorial Hospital from 1996 to 2011.

Results: The underlying malignancy included malignant lymphoma in 5, acute lymphoblastic leukemia in 2, Ewing sarcoma in 1 and rhabdomyosarcoma in one 1. Seven patient had initial presentation with superior vena cava syndrome, and two patient had superior vena cava syndrome during their treatment course. Seven patients with superior vena cava syndrome as initial presentation, four had non-Hodgkin's lymphoma, two had acute lymphoblastic leukemia, one had Hodgkin's disease, one had neuroblastoma, and one had a yolk sac tumor. Their clinical condition at presentation was often critical and required rapid treatment. In all cases, histopathologic diagnosis was obtained without complication by either bone marrow aspiration, lymph node biopsy, or thoracotomy prior to the initiation of definitive therapy. Two children had superior vena cava syndrome as a late complication during the course of their therapy. None had an antecedent history of superior vena cava obstruction. In contrast to the patients with superior vena cava obstruction at presentation, this group was composed predominantly of patients with recurrent solid tumors (one was Ewing's sarcoma, another was rhabdomyosarcoma).

Conclusions: Although rare, pediatricians are possible to face a child with malignancy presenting as superior vena cava syndrome and need to be aware of this potentially treatable medical emergency.

37 Central Air Conditioning and the Building Increase the Risk of Childhood Eczema

大樓住宅與中央空調增加幼兒濕疹機會

Chih-Chiang Wu^{1,2}, Su-Boon Yong¹, Ho-Chang Kuo³,
Chia-Yu Ou⁴, Te-Yao Hsu⁴, Kuender D. Yang^{1,2}

Department of Pediatrics, Show Chwan Memorial Hospital¹, Changhua, Taiwan; Department of Medical Research, Show Chwan Health Care System in Chang Bing², Changhua, Taiwan; Department of Pediatrics, Kaohsiung Chang Gung Memorial Hospital, Taiwan; Chang Gung University College of Medicine³, Kaohsiung, Taiwan; Department of Obstetrics & Gynecology, Kaohsiung Chang Gung Memorial Hospital⁴, Taiwan. Chang Gung University College of Medicine, Kaohsiung, Taiwan

吳自強^{1,2}、楊樹文¹、郭和昌³、歐家佑⁴、許德耀⁴、
楊崑德^{1,2}

台灣秀傳紀念醫院兒童內科部¹；秀傳健康醫療體系醫學研究部²；台灣高雄長庚紀念醫院兒童內科部³；台灣高雄長庚紀念醫院婦產部⁴

Background: Environmental and genetic factors both play critical roles in allergy sensitization and the development of allergic diseases. Several studies showed that air pollution and vehicular traffic might increase prevalence of asthma or allergic respiratory tract diseases in urban areas. One study showed that mite sensitization has a significant association