

Liu SY, Hsieh YL*, Chou LW. D Possible Modulation of Myofascial Pain by the Dry Needling at Distal Trigger Spots in a Rabbit Model. The Physical therapy Association of the Republic of China (Taiwan) The 38th Annual Congress and The 66th Scientific Conference, Taipei, TAIWAN. 23 March – 24 March, 2013. (Oral presentation)



中華民國物理治療學會

第三十八次年會暨第六十六次學術論文研討會

Physical Therapy Association of the Republic of China (Taiwan)

The 38th Annual Congress and The 66th Scientific Conference

地點： 國立陽明大學學生活動中心

日期： 民國 102 年 3 月 23 - 24 日

Location: National Yang-Ming University

Date : March 23-24, 2013

學術論文演講

陽明大學 學生活動中心(表演廳)

座長：鄭宇容 助理教授			
論文編號	報告時間	演講者	論文題目
1	9:00-9:15	林璟蒲	有氧結合阻力型運動對於血管新生的影響
2	9:15-9:30	陳怡靜	交替式有氧與阻力性運動訓練對靜態生活男性之血小板黏著的影響
3	9:30-9:45	黃方君	以動物模式探討高強度低能雷射對於治療類風濕性關節炎的效益
4	9:45-10:00	劉思雨	以兔子模式探討遠端肌激痛點乾針治療對於肌筋膜疼痛之可能調控機制
	10:00-10:45		壁報展示、點心時間
座長：王鐘賢 教授			
5	10:45-11:00	李雅芳	肌內效貼紮對肩胛關節本體感覺的影響- 初步結果
6	11:00-11:15	王媛黎	治療性複合式運動對老年族群執行功能與步態表現之訓練效果
7	11:15-11:30	施育欽	使用大鼠丘腦誘導出血之中樞中風後疼痛模型在島葉皮質探討有效 μ -類鴉片受體促進劑對不同鴉片受體拮抗劑的選擇性

*每位演講者時間為 15 分鐘：報告 12 分鐘，討論 3 分鐘

以兔子模式探討遠端肌激痛點乾針治療對於肌筋膜疼痛之可能調控機制

Possible Modulation of Myofascial Pain by the Dry Needling at Distal Trigger Spots in a Rabbit Model

劉思雨¹ 謝悅齡^{1,*} 周立偉²

Szu-Yu Liu¹ Yueh-Ling Hsieh^{1,*} Li-Wei Chou²

- ¹ 中國醫藥大學物理治療學系暨復健科學碩士班
Department of Physical Therapy, Graduate Institute of Rehabilitation Science, China Medical University, Taichung, Taiwan
- ² 中國醫藥大學附設醫院復健部
Department of Physical Medicine and Rehabilitation, China Medical University Hospital, Taichung, Taiwan

Background and Purpose: The remote effectiveness of dry needling therapy for pain control of myofascial trigger points (MTrPs) has been demonstrated in many clinical studies. The alterations of serotonin (5-HT), β -endorphin (β -EP) enkephalin (ENK), and substance P (SP) are probably involved in analgesia and pain. However, little is known about the alterations of these biochemicals of nociception and antinociception affected by the dry needling at MTrPs on proximal skeletal muscles and spinal circuits. The study aimed to elucidate the biochemical mechanism underlying remote effects by dry needling at rabbit skeletal muscle myofascial trigger spots (MTrSs, similar to human MTrPs) by immunoassays for β -EP, ENK, SP and 5-HT. **Methods:** New Zealand rabbits (2.5-3.0 kg) received dry needling or sham-needling operation at MTrSs of a unilateral gastrocnemius (distal muscle) with 3 minutes for one session (1D) or five daily sessions (5D). Bilateral biceps femoris muscles (proximal muscle), dorsal root ganglia (DRG) of L2-L5 and spinal cords were sampled immediately and 5 days after dry needling. Immunoassays was performed to determine the levels of β -EP and SP in proximal muscles and DRG, ENK, SP and 5-HT in dorsal horns and serum β -EP level. **Results:** The β -EP levels in the bilateral muscles and DRGs were significant increased immediately after 5D. The serum β -EP levels significantly increased after 1D and 5D. The SP levels in ipsilateral muscles were significantly decreased except at 5 days after 1D. The expression of SP-like immunoreactivity in bilateral dorsal horns has similar findings with those in muscles and DRG. The increased ENK-like immunoreactivity was also found in bilateral dorsal horns immediately after 5D, but 5-HT was decreased. **Conclusion:** Dry needling at distal MTrPs muscle might modulate β -EP and SP levels in proximal muscle and DRG, and ENK, 5-HT and SP levels in dorsal horns. **Clinical Relevance:** It can provide the evidence basis for developing therapeutic strategies in myofascial pain treatment.

感謝狀

謹謝劉思雨君 參與本會

第六十六次論文研討會，

內容精闢特此申謝。



社團法人中華民國物理治療學會

理事長 鄭素芳

中華民國十一年七月二十三日

