中華民國高壓暨海底醫學會
105 年會員大會暨學術研討會

日期：105 年 06 月 19 日 09:00~17:00
地點：三軍總醫院 醫療大樓 B1 第一演講廳(臺北市內湖區成功路二段 325 號)

時　間	主　　題	主講人	座長
08:30-09:00	**報 到**		
09:00-09:10	開幕式/貴賓致辭	吳怡昌理事長 /林石化院長	
09:10-10:00	重返海洋-人類的潛水史	蘇達貞	李惠傑
10:00-10:20	Coffee break 茶 敘		
10:20-10:40	會員大會		吳怡昌 理事長
10:40-11:00	理監事選舉投票		夏德椿 秘書長
11:00-12:00	理監事選舉開票		
12:00-12:30	第 10 屆理事長選舉		
12:30-13:00	Lunch 午餐		
13:00-13:30	優良海報論文口頭報告(基礎 3 篇)	論文作者	夏德椿 黃坤崙
13:30-14:30	優良海報論文口頭報告(臨床 5 篇)	論文作者	夏德椿 黃坤崙
14:30-15:00	18 年下肢困難傷口的經驗分享	張耀中	牛柯琪
15:00-15:30	Coffee break 茶 敘		
15:30-16:00	微小粒子在一氧化碳中毒的研究	陳燕溫	陳紹原 張舜程
16:00-16:30	燒燙傷治療新趨勢-八仙塵爆週年回顧	戴念梓	
16:30-17:00	**頒獎及閉幕式**	吳怡昌理事長	

壁報論文編號：P. 04

雙側股骨幹骨折術後引起腦脂肪栓塞以高壓氧治療經驗-病例報告

Cerebral Fat Embolism After Bilateral Femur Fracture Fixation and Treated by Hyperbaric Oxygen Therapy- A Case Report

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Introduction:

Fat emboli can cause a more serious condition called fat embolism syndrome, in which circulating fat emboli or macroglobules result in multisystem dysfunction. Approximately 90% of the cases are associated with trauma, especially fracture or surgery of a large bone, such as the femur. eurological features include agitation, delirium, seizures or coma in 86% of patients. We report a 23-year-old male who bilateral femoral shaft fracture complicated by cerebral fat embolism after surgery.

Material and method:

A 23-year-old patient who suffered from bilateral femoral shaft fracture due to traffic accident. He was performed open reduction internal fixation with reamed interlocking nail on the same day. After surgery, he appeared acute deterioration of consciousness and loss of ability to speak. Brain MRI showed multiple fatty emboli occlusion at bilateral frontoparietal deep white matter and basal ganglia. He received supportive care with adequate hydration, oxygenation and hyperbaric oxygen therapy (HBOT) 2.5 ATA, 120 min and once daily for 2 times.

Results:

He fully returned to consciousness without chest distress, dyspnea or other pulmonary symptoms after HBOT. Finally, he did not have any residual neurological deficit after discharge and orthopedic clinic followed up 1 year.

Conclusion:

Fat embolism is caused by the lipid droplets in the blood circulation which block the small vessels, commonly seen in long bone fractures. The severity of fat embolism depends on the size and quantity of lipid droplets which mainly affects the lungs and nervous system. Effectiveness of early hyperbaric oxygen therapy on cerebral fat embolism has confirmed in this case. HBOT may increases blood oxygen pressure that radial diffusion of oxygen in capillary of the brain tissue to improve microcirculation as well as promote establishment of collateral circulation. It also increases phagocytosis of phagocytic cells to restore the function of brain.

Reference:

1. George Cox *et al.* Cerebral fat emboli: A trigger of post-operative delirium Injury *Int. J. Care Injured 42 (2011) S4, S6–S10.*
2. Craig C Akoh *et al.* Fat embolism syndrome after femur fracture fixation a case report *The Iowa Orthopaedic Journal Vol. 34 55-62*
3. Konstantinos Porpodis *et al.* Fat embolism due to bilateral femoral fracture: a case report International *Journal of General Medicine 2012:5 59–63*
4. Filippo Randelli *et al.* Bilateral femoral shaft fractures complicated by fat and pulmonary embolism: a case report Injury *Int. J. Care Injured 46 S7 (2015) S28–S30*
5. S. Samuel Bederman *et al.* Do corticosteroids reduce the risk of fat embolism syndrome in patients with long-bone fractures? A meta-analysis *Can J Surg, Vol. 52, No. 5, October 2009*