

出國報告（出國類別：開會）

參加 2018 年第七屆亞太骨質疏鬆會 議心得報告

服務機關：國立陽明大學附設醫院

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摘要

107.11.29-12.3 筆者代表本院家庭醫學部至澳洲雪梨參加 2018 IOF 亞太會議，中華民國骨質疏鬆症學會同行出席代表為臺大醫院骨科部主任楊榮森教授、臺大竹東分院詹鼎正院長、高醫陳崇桓秘書長、林口長庚黃兆山監事、高雄長庚風濕免疫科鄭添財主任等。本次 IOF 亞太會議著重於亞太地區人口迅速高齡化之問題。本院家醫部投稿 Abstract 之題目為「Eosinophil ratio could be a marker in patients with sarcopenia」，並獲得刊登。會中演講主題涵蓋骨鬆高危險患者的鑑別(Improve the identification of high risk patients)、了解亞洲族群和西方國家之間骨折風險和治療反應的異同(Understand the similarities and differences in fracture risk and treatment response between Asia and the West)、了解鈣攝取不足的結果(Understand the consequences of low calcium intake)、如何評估骨質疏鬆症、骨關節炎或肌少症患者的生活質量(Assess quality of life in your elderly patients with osteoporosis, osteoarthritis or sarcopenia)、評估和管理次發性骨質疏鬆症(Assess and manage secondary osteoporosis)、以及通過了解最新的骨質疏鬆症治療以縮小治療差距(Close the treatment gap by learning about the latest osteoporosis therapies)等。

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壹、目的

此次出國目的為參加 2018 年 11 月 29 日至 12 月 03 日於澳洲雪梨舉行之第 7 屆 International Osteoporosis Foundation 所舉辦之 Asia-Pacific Osteoporosis Conference 之海報發表。International Osteoporosis Foundation 會議為骨質疏鬆症及肌少症診斷與治療相關最重要之醫學會議。其目的為達各國的經驗交流，新式治療方式的研討及教導，對我國而言，能將本院研究成果發表於會議中，不但使各國了解臺灣醫療研發之進步，更可達到互相觀摩的目的。

此次 2018 第 7 屆亞太骨鬆會議之主題為「骨質疏鬆症的全球挑戰與在地化衝擊(Osteoporosis, global challenge, local impacts)」，聚焦於骨折風險和治療於亞洲與西方國家的異同點、科技研發(包括 AI 人工智慧)及骨質疏鬆診斷之醫學教育，此次與會代表來自 53 個國家，超過 1,000 位專家共同交換有關科技教育、臨床研究、流行病學及公共衛生等多領域相關健康議題。此次大會議題活動多元，可增加知識強度與技巧，包括 2 場專家會議，10 餘場專題演講 (symposiums)，1 場關於訂定合適各國鈣攝取量的圓桌會議，10 篇口頭報告，200 篇壁報展示 (posters) 等等。本次會議中，筆者投稿主題為「EOSINOPHIL RATIO COULD BE A MARKER IN PATIENTS WITH SARCOPENIA」之海報與會。

貳、過程

第七屆 IOF 亞太骨鬆會議(7th IOF Asia-Pacific Osteoporosis Conference)，於澳洲雪梨國際會議中心 (International Convention Centre Sydney, ICC)舉行，地點位於雪梨市區達令港。本次會議時間自 11 月 28 日開始，但 11 月 29 日為生策會舉辦之臺灣醫療科技展開幕，筆者於 11 月 29 日協助本院醫療科技展開幕事宜後於深夜搭機前往與會。本次會議聚焦於骨質疏鬆之全球化及在地化衝擊，故除參與海報展示外，學習各國對於骨質疏鬆預防的政策與概念為本次大會之主要目的。

11 月 30 日大會演講主題為「Improving the identification of high risk patients」，內容強調骨質疏鬆專科醫師如何提早識別高風險病患，並予以衛教服務，世界趨勢越來越著重關於骨質疏鬆的篩檢與早期介入，講題包括「BMD and other parameters of bone in Asia vs West」、「FRAX: intervention threshold in Asia vs West」、「Response to osteoporosis treatment: is it the same in Asian and Caucasian」、「Recent Fracture: when and how to treat osteoporosis」等。

12月01日大會演講主題則為「Falls prevention: is it possible」，內容是關於骨質疏鬆的介入及其併發症(骨折)的預防，講題包括「Bone loss in early menopause: to treat or not?」、「Genetic markers of bone fragility: what have we learned」、「Can we trust bone turnover markers to improve fracture assessment」、「Closing the gap in the treatment of patients at imminent risk of fracture: role of the new anabolic agents」等。

本次 IOF-agnovos healthcare young investigator awards 主題涵蓋性多樣化，包括「Oral bisphosphonate use and all-cause mortality in patients with advanced (stage IIIB+) chronic kidney disease: a population-based cohort study」、「Atypical femur fractures in an australian hospital setting: incidence, patient risk factors and densitometric characteristics」、「Associations between pain at multiple sites and prevalent and incident fractures in older adults」、「Mid-calf skeletal muscle density and its associations with accelerometer- determined physical activity, bone health and incident 12-month falls in older adults: the healthy ageing initiative」等。五天行程豐富而充實。

參、心得：

本次參與第七屆 IOF 亞太骨鬆會議，除參與海報發表，並與各國專家學者進行意見交流外，由大會幾個主題包括「T-SCORE 作為治療骨折風險的指標：ROMOSUZUMAB 相較 ALENDRONATE 之治療」、「骨折風險和治療觀點之異同：亞洲與西方」、「骨折患者的蛋白質攝入和補充」、「改善鈣攝入量的潛在策略－於低攝入量國家的可行性」等，不僅學習到骨質疏鬆症與肌少症治療的最新進展，另外，對於以營養與運動處方作為家庭醫學科醫師介入這兩種高齡疾病的協作，亦有初步之了解，可為本院家庭醫學部擬定日後研究計畫之方向。

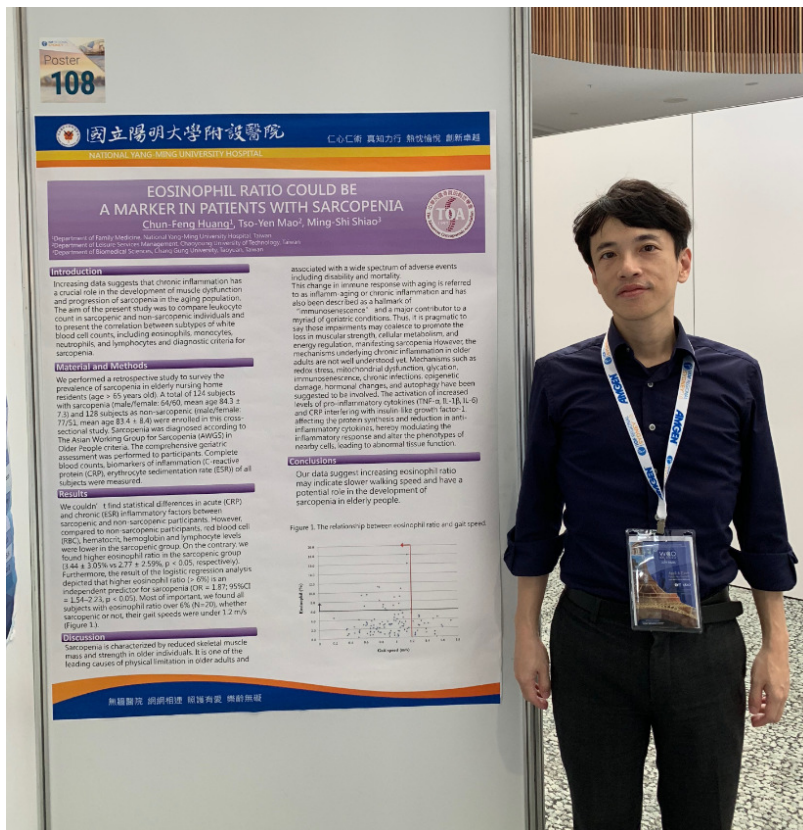
肆、建議事項

參與本次會議，學習到世界各國學者專家針對骨質疏鬆及肌少症預防治療策略之建言，同樣地，骨質疏鬆症與肌少症亦為臺灣邁向高齡社會時所需面臨之重要議題，若於蘭陽地區聚焦陽明大學與本院豐沛之研究能量於此相關領域，相信有助於亞洲族群骨質疏鬆症及肌少症診斷與介入模式之建立。

伍、附錄



第七屆 IOF 亞太骨鬆會議, ICC 大會入場處留影。



第七屆 IOF 亞太骨鬆會議，與代表本院投稿之海報留影。



第七屆 IOF 亞太骨鬆會議演講一隅。



中華民國骨鬆學會參展一隅。



第七屆 IOF 亞太骨鬆會議晚宴時與臺灣所有與會專家合照。

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EOSINOPHIL RATIO COULD BE A MARKER IN PATIENTS WITH SARCOPENIA

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Objectives: Increasing data suggests that chronic inflammation has a crucial role in the development of muscle dysfunction and progression of sarcopenia in the aging population. The aim of the present study was to compare leukocyte count in sarcopenic and non-sarcopenic individuals and to present the correlation between subtypes of white blood cell counts, including eosinophils, monocytes, neutrophils, and lymphocytes and diagnostic criteria for sarcopenia.

Material and Methods: We performed a retrospective study to survey the prevalence of sarcopenia in elderly nursing home residents (age > 65 years old). A total of 124 subjects with sarcopenia (male/female: 64/60, mean age 84.3 ± 7.3) and 128 subjects as non-sarcopenic (male/female: 77/51, mean age 83.4 ± 8.4) were enrolled in this cross-sectional study. Sarcopenia was diagnosed according to The European Working Group on Sarcopenia in Older People criteria. The comprehensive geriatric assessment was performed to participants. Complete blood counts, biomarkers of inflammation (C-reactive protein (CRP), erythrocyte sedimentation rate (ESR)) of all subjects were measured.

Results: We couldn't find statistical differences in acute (CRP) and chronic (ESR) inflammatory factors between sarcopenic and non-sarcopenic participants. However, compared to non-sarcopenic participants, red blood cell (RBC), hematocrit, hemoglobin and lymphocyte levels were lower in the sarcopenic group. On the contrary, we found higher eosinophil ratio in the sarcopenic group (3.44 ± 3.05 vs 2.77 ± 2.59 , $p < 0.05$, respectively). Furthermore, the result of the logistic regression analysis depicted that higher eosinophil ratio (>6%) is an independent predictor for sarcopenia (OR = 1.87; 95%CI = 1.54–2.23, $p < 0.05$). Most of important, we found all subjects with eosinophil ratio over 6% (N=20), whether sarcopenic or not, their gait speeds were under 1.2 m/s.

Conclusion: Increased eosinophil ratio can indicate slower walking speed and may have a significant role in the development of sarcopenia in the elderly population.

海報摘要