骨礦物密度與老人發生跌倒之相關

The Relation between Bone Mineral Density and Falls Occurrence in Elderly People

中文摘要

目的：了解台北縣三重市地區六十五歲以上，骨質疏鬆的老人是否比骨質正常的老人較容易跌倒，並印證骨質疏鬆是跌倒的危險因子。

方法：研究設計採個案-對照研究，收集自 2006 年 6 月至 2006 年 10 月，80 位六十五歲以上因跌倒而至台北縣立醫院三重院區急診室就診的老人爲個案組，配對 80 位至健檢門診接受健保六十五歲以上老人健康檢查，並且在過去一年以內沒有發生跌倒的老人爲對照組。以雙能量 X 光吸收測量儀(dual-energy X-ray absorptiometry ，DXA)測量其非慣用側手腕橈骨頭之骨礦物密度（bone mineral density，BMD）。

結果：160 位受檢老人中有 87 位（56.5%）屬於骨質疏鬆，80 位跌倒老人中高達 70.3% 屬於骨質疏鬆；調整年齡、臀圍之後，骨質疏鬆對跌倒的勝算比爲 12.0 (95%信賴區間：1.1-125.2)，顯示骨質疏鬆的老人確實較易跌倒。身邊有人陪伴、照顧，擁有資產，有宗教信仰、心靈上有所寄託，傾向較不易跌倒。

結論：對六十五歲以上老人而言，骨質疏鬆可能是跌倒的危險因子。

英文摘要

Purpose: To investigate the relation between bone mineral density (BMD) level and falls occurrence in elderly people and osteoporosis is one of the risk factors of falls.

Method: The is a case-control study, we investigated 80 cases out of 94 patients consecutively admitted to emergency department of Taipei county hospital San-Chung branch due to falling from June to Oct. in 2006. While matched on sex, age, 80 controls were found in elderly people health center. BMD was assessed by the dual-energy x-ray absorptiometry (DXA) at distal third of radial bone of non-dominant side.

Results: The overall incidence of osteoporosis in the study is 56.5% and 70.3% in cases group. The relative risk of falls for osteoporosis, as compared to the normal BMD group, had adjusted odds ratio 12(95% C.I.: 1.1-125.2). The T-score of BMD significantly differed between the 80 cases and the 80 controls. People live alone or without a spouse, without real estate and without religious belief tend to fall.

Conclusions: Osteoporosis can be a risk factor for falling in elderly people