Prevalence and related factors of fall among the elderly in Amirkola, North Iran

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Background: Falls is a major health issue in the elderly. In order to investigate falls and related factor, this study was performed   .

Methods: 1028 Elderly people with aged 60 and above was entered this study. Questionnaire including demographic information, medical history, questions about falls. The strength of the quadriceps was measured by using classic scales and the highest level of power the individual could bear down on the spring gauge was recorded. Then stronger than 30 kilograms was considered strong, 15-30 kilograms average and less than 15 kilograms weak. Categories of vitamin D were defined as <30 nmol/L for vitamin D deficiency, insufficient (30-50 nmol/L) and sufficient (>50 nmol/L.)

Findings: 573 elderly (55.7%) was male. 178 individuals (17.3%) had experienced falls. Gender with falls was (82(14.3%) men, 96 (21.1%) women, p=0.004). Mean age between the elderly that falls and did not falls was significant (7/7±85/69, 8/6±99/67, p=0.001). History of falls was significant related with visionless (79(20.4%) vision less, 89(15.4%) normal, p=0.041). Quadriceps muscle strength had significant relation with falls (23(9.3%) weak, 30(5.6%) average, 9(3.6%) strong, p=0.025). Falls had significant relation with sacrofemural bone disorder (83(23.1%) osteoporosis, 69 (15.2) % osteopenia, 26(12.1) %normal, p=0.001.)

Conclusion Elderlies with sacrofemural bone disorder, weak quadriceps muscle strength, Females, ageing and vision loss should be considered at-risk target population.

Keywords: falls| elderly| quadriceps muscle | visual impairment