Abstract THU0466

Objectives: To describe the associations of localised pain severity and generalised pain (number of painful sites) with incident fractures, and to explore whether their associations are independent of falls risk, bone mineral density (BMD) and potential confounders.

Methods: Data from a longitudinal population-based study of older adults (mean age 63 years, 51% female) were utilised. A mean follow-up was performed at 2.6, 5.1 and 10.7 years later, respectively. Pain severity in the knee was measured by the Western Ontario and McMaster Universities Osteoarthritis Index pain questionnaire. Presence/absence of pain at the neck, back, hands, shoulders, hips, knees and feet was assessed by questionnaire at baseline. Fractures were self-reported at each time-point. BMD was measured by Dual-energy X-ray absorptiometry (DXA). Falls risk was calculated based on the short form Physiological Profile Assessment.

Results: A total of 455 fractures at baseline and 154 new fractures were reported during follow-up. In multivariable analyses, both pain severity and number of painful sites were associated with prevalent fractures at any site. Pain severity was associated with prevalent vertebral fractures, while number of painful sites was associated with prevalent fractures at non-vertebral and hip sites. Furthermore, pain severity was associated with an increased risk of incident fractures at any site [relative risk (RR) 1.04, 95%CI 1.02-1.06], major (including the femur, radius, ulnar, vertebral, rib and humerus) (RR 1.10, 95%CI 1.05-1.15) and vertebral (RR 1.04, 95%CI 1.01-1.08). Similarly, number of painful sites was also associated with increased risk of incident fractures at any site [RR 1.69, 95%CI 1.13-2.53], major (RR 2.17, 95%CI 1.12-4.22) and vertebral (RR 6.44, 95%CI 1.64-25.33). There was a dose-response relationship between number of painful sites and risk of incident fractures. These associations remained significant after further adjustment for falls risk and BMD. No significant associations were found for fractures occurring at non-vertebral and hip sites.

Conclusion: Both pain severity and generalised pain are associated with increased risk of prevalent and incident fractures, which is independent of falls risk, BMD and potential confounders, suggesting that pain may be an independent marker of fracture risk. Improved pain management may have the potential to prevent fractures in older adults.

Disclosure of Interests: None declared

THU0468

THE INTERACTIONS OF PHYSICAL ACTIVITY LEVELS WITH THE SODIUM CHANNEL PROTEIN TYPE 9 SUBUNIT ALPHA AND METHYLMONONITROSONITRITE REDUCTASE GENES ARE ASSOCIATED WITH FATIGUE IN WOMEN WITH FIBROMYALGIA

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Background: People with fibromyalgia identify fatigue as one of the main symptoms of the disease [1]. It is hypothesised that the pathogenesis of fibromyalgia involves a genetic susceptibility that is modulated by environmental factors [2].

REFERENCES:

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