Introduction

Low bone mineral density occurs more commonly in patients with haemophilia (PWH) than the general population. However, the fracture risk of haemophilia-related osteoporosis has not been well established.

Purpose

We explored the relationship between haemophilia and the subsequent development of osteoporotic fracture.

Methods

We selected patients who were diagnosed with haemophilia, according to the data in the Taiwan National Health Insurance Research Database. A comparison cohort was formed of patients without haemophilia who were matched according to age and sex. The incidence rate and the hazard ratios (HRs) of subsequent new-onset osteoporotic fracture were calculated for both cohorts.

Results

The haemophilia cohort consisted of 75 patients, and the comparison cohort comprised 300 matched control patients without haemophilia. The risks of osteoporotic fracture (HR = 5.41, 95% confidence interval [CI] = 2.42–12.1, P < .001) was higher in the haemophilia cohort than in the comparison cohort. After adjustments for age, sex, comorbidities, urbanizations, and socioeconomic status, patients with osteoporosis were 4.53 times more likely to develop multiple osteoporotic fractures (95% confidence interval, 1.93–10.62, p = .001) as compared to matched patients. In addition, the incidence of newly diagnosed osteoporotic fracture remained significantly increased in all of the stratified follow-up durations (1-5, ≥5 y).

Conclusions & Comments

Haemophilia may increase the risk of subsequent osteoporotic fracture. The risk ratios are highest for PWH diagnosed more than 5 years. Clinicians should pay particular attention to osteoporotic fracture in PWH.

Key word: haemophilia, National Health Insurance Research Database, osteoporotic fracture

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