

Is bisphosphonate use associated with an increased risk of reoperation after elective total hip replacement?

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Introduction

Bisphosphonates have been associated with a lower overall reoperation risk after total hip replacement (THR). However, bisphosphonate users (BU) may have an increased risk of periprosthetic fractures. Risks for BU undergoing THR have not been investigated in Sweden. Hence, the current study aimed to analyse the risk of reoperation after THR in BU compared to non-bisphosphonate users (NBU).

Materials and Methods

Patients undergoing primary THR during 2008-2014 due to osteoarthritis were identified in the Swedish Arthroplasty Register (SAR). Data on bisphosphonate use, defined as continuous use for at least 12 months preoperatively, was obtained from the Prescribed Drug Register. The exposed group consisted of 2,132 BU that was compared to a propensity-score matched control group consisting of 12,792 NBU. Data were analysed using Kaplan–Meier survival analysis and Cox regression models.

Results

The entire cohort had a mean age of 74 years and the majority were women (90%). The cumulative reoperation rate at 6 years was 3.1% for BU and 2.5% for NBU. There was no statistically significant difference in the adjusted risk for reoperation (HR 1.2 (95% C.I. = 0.9-1.6)).

Discussion

The use of bisphosphonates did not statistically significantly modify the adjusted risk of reoperation after THR, contradicting previous findings of a decreased reoperation risk in BU. Based on these findings, antiresorptive treatment seems to be safe in THR patients.