Participants who maintained adequate vitamin D levels over 5 years had significantly less WOMAC knee pain (β: —38.4, 95% CI: —69.2 to —7.7) and physical dysfunction (β: —98.5, 95% CI: —193.8 to —3.1) than participants with vitamin D deficiency over 5 years in multivariable analyses.

Conclusions: Vitamin D supplementation over 2 years did not result in significant differences in change in knee symptom score over 5 years compared to placebo. However, knee OA patients maintaining sufficient serum vitamin D levels over long-term had more improvement in knee pain and physical function than those who did not maintain adequate vitamin D levels, suggesting a beneficial effect of maintaining sufficient serum vitamin D for knee OA.

Disclosure of Interest: None declared


PREOPERATIVE PAIN SEEMS TO MODIFY THE EFFECT OF RADIOGRAPHIC OSTEOARTHRITIS SEVERITY ON POSTOPERATIVE PAIN AND FUNCTION 1 YEAR AFTER TOTAL KNEE ARTHROPLASTY

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Background: Radiographic osteoarthritis (OA) severity and pain play an important role in the indication for total knee arthroplasty (TKA). It is however unknown whether preoperative self-reported clinical pain modifies the effect of radiographic OA severity on postoperative pain and function in OA patients after TKA.

Objectives: To investigate whether preoperative self-reported clinical pain modifies the effect of radiographic OA severity on postoperative pain and function in OA patients 1 year after TKA.

Methods: Data from the Longitudinal Leiden Orthopaedics Outcomes of Osteoarthritis Study (LOAS), a multicentre cohort study on outcomes after TKA were used. Radiographic OA severity was assessed with the Kellgren and Lawrence (KL) score (0–4). Pain and function were evaluated with the Knee Injury and Osteoarthritis Outcome Score (KOOS). After adjustment for confounders (BMI, age, gender and Mental Health Component Scores from the Short Form-12), multivariate linear regression analyses with an interaction term between KL-score and preoperative pain were performed.

Results: 560 patients were included. Both KL-score and preoperative pain were associated with postoperative pain (β=6.1, 95% CI: 1.7 to 10.5 and β=0.4, 95% CI 0.1 to 0.7) and function (β=8.0, 95% CI: 3.7 to 12.3 and β=0.5, 95% CI 0.2 to 0.8). A trend towards effect modification of preoperative pain on the association between KL-score and postoperative pain (β =—0.1, 95% CI —0.2 to 0.0) and function (β=0.1, 95% CI 0.2 to 0.0) was found indicating that effect of preoperative pain on postoperative pain and function seems to become less important when more severe radiographic severity is present.

Conclusions: Patients with less preoperative pain and higher KL grades have better function and pain outcomes 12 months after TKA. However preoperative pain seems less important in patients with more severe radiographic OA.

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