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“The role of knee joint synovitis in dissatisfied total knee arthroplasty patients”

Osteoarthritis (OA) is a leading cause of disability and reduced quality of life, presenting a substantial, growing burden to both patients and the healthcare system. OA is generally thought to be a non-inflammatory disease, however, surprising to many, joint inflammation is an important feature of OA. Inflammation in the knee is associated with increased joint pain and stiffness in knee OA. Total knee arthroplasty (TKA) (knee replacement surgery) is an effective intervention for severe OA. However, patient dissatisfaction for persistent pain or poor function is common with approximately 20% of patients reporting dissatisfaction following their first TKA. Also, little information is available to predict who will benefit the most from TKA. The main stay of treatment for dissatisfied patients is currently pain management and lifestyle modification (exercise, activity modification, diet, etc.) for these individuals. Patient dissatisfaction after TKA is attributed to several key factors: patient expectations prior to surgery, the degree of improvement in knee function, and pain relief following surgery. We hypothesize that there is an interplay between joint inflammation and modified joint loading after a TKA, which may lead to patient pain and dissatisfaction. To date, it is unclear if knee joint inflammation has any impact on pain and patient outcomes after TKA. Also, it has yet to be determined if medications that decrease inflammation (immune modulators) may have an effect on pain and improving clinical outcomes that are potentially caused by inflammation in post-TKA patients. With patient dissatisfaction following TKA affecting approximately 20% of patients, it is imperative to understand what potentially contributes to patient pain and poor functional outcomes.