Time-Course Incidence of Knee Arthroplasty Following Arthroscopic Partial Meniscectomy in Patients Without Preoperative Osteoarthritis Diagnoses

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INTRODUCTION:
There is ongoing debate regarding the efficacy of arthroscopic partial meniscectomy (APM) for the management of degenerative meniscus tears. APM has been shown to increase the risk of the development and progression of knee osteoarthritis (OA). This study evaluated the time-course incidence of knee arthroplasty in patients undergoing APM without a previous diagnosis of knee OA.
METHODS:
A retrospective review was conducted using a national commercial claims dataset. Patients without a diagnosis of knee OA and underwent APM between 2016-2020 were identified. Data were analyzed to determine the number of patients in this group who subsequently had a total or uni-compartmental knee arthroplasty at 3, 6, 12, and 24-month intervals after their index APM. Patient demographics including age, sex, and their Elixhauser Comorbidity Index were collected and statistically compared among those who did and did not undergo knee arthroplasty after APM.
RESULTS:
Among 197,871 patients who underwent APM without a pre-operative diagnosis of knee OA, 42,094 (21.3%) patients subsequently developed a diagnosis of knee OA and had a knee arthroplasty within 24 months of APM. Data analysis showed that 2,477 (1.3%), 8,192 (4.1%), 15,859 (8.0%) and 15,566 (7.9%) of patients had a knee arthroplasty at 3, 6, 12 and 24 months after APM.
DISCUSSION AND CONCLUSION:
Over one-fifth of patients who underwent APM without a pre-operative diagnosis of knee OA underwent knee arthroplasty within 2 years after surgery. Clinicians and patients considering APM should discuss the possibility of subsequent knee arthroplasty when weighing the benefits and risks of surgery.