age, disease duration, comorbidities, family history of a rheumatoid disease, ANAs, treatment agents and disease activity and quality of life assessment tools.

**Results:** A total of 863 RA male patients were studied with a mean age of 53.1 (15.5) years and a mean disease duration 7.3 (5.5) years. 652 (75.6%) had positive RF and 624 (73.2%) had positive ACPA. 431 (50%) had at least one comorbidity, 640 (74.2%) were on conventional disease modifying agents (cDMARDs) and 223 (25.8%) were on biologic therapy. 183 (21.2%) were smokers. After adjustment of other factors, logistic regression showed that smokers were significantly different than non-smokers in terms of a positive ACPA (β=0.82, p<0.001, odds=4.019) and a positive RF (β=0.804, p<0.019, odds=2.517).

**Conclusion:** Smokers have a higher risk of expressing a positive RF and a positive ACPA in a male population. Smoking should be considered as a possible risk factor for RA and efforts should be done to educate the population to cease smoking to possibly lower that risk.

**References:**


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**PERIARTICULAR OSTEOPHYTE FORMATION PROTECTS AGAINST TOTAL KNEE ARTHROPLASTY IN RHEUMATOID ARTHRITIS PATIENTS WITH ADVANCED JOINT DAMAGE**

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**Background:** New medications including biologics and aggressive treatment strategies can halt the inflammatory and destructive disease processes in patients with rheumatoid arthritis (RA), and in some cases repair damaged joints. In the presence of damaged joint repair periarticular osteophyte formation might be detected radiographically\(^1\). However, little is known about the clinical and functional role of osteophyte formation in RA joints. Total joint arthroplasty, a common procedure for treating damaged large joints, can serve as a surrogate for the long-term outcome of large joint destruction in patients with RA.

**Objectives:** To determine the influence of periarticular osteophyte formation on the incidence of total knee arthroplasty (TKA) in patients with RA.

**Methods:** This retrospective longitudinal study used data from a registry of patients with RA starting biologics. A flow chart summarizing the study design is shown in Figure 1. A total of 130 symptomatic (tender and/or swollen) knee joints in 80 patients were studied with a median follow-up of 12 years. All data were analyzed using the knee joint as the statistical unit of analysis. The cumulative incidences of TKA were estimated using Kaplan-Meier curves, and compared according to the presence of a periarticular osteophyte on plain anteroposterior radiograph (osteophyte (+)) and the extent of advanced joint damage as defined by Larsen's grading system (0-II vs. III-V).

**Results:** Baseline characteristics of all subjects included in this study are shown in Table 1. A total of 42 knees underwent TKA during the follow-up period. There was no significant difference in the cumulative incidence of TKA between the osteophyte (+) and osteophyte (-) groups (31% vs. 34% at 10 years, P=0.718) (Fig. 2A). The cumulative incidence of TKA was significantly higher for the Larsen grade III-V group compared to the Larsen grade 0-II group (56% vs. 10% at 10 years, P<0.001) (Fig. 2B). While no significant difference was observed in the cumulative incidence of TKA between the osteophyte (+) and osteophyte (-) groups in the Larsen grade 0-II group (9% vs. 10% at 10 years, P=0.774) (Fig. 2C), the cumulative incidence of TKA was significantly lower for the osteophyte (-) group compared to the osteophyte (+) group in the Larsen grade III-V group (38% vs. 74% at 10 years, P=0.010) (Fig. 2D). Multivariate analysis using Cox proportional hazards models revealed that older age (hazard ratio (HR): 1.04