Study Results: Cigarette Smoking & Disease Activity in RA Patients

Authors: Jacob B, Tomlinson GA, Akhavan P, Bombardier C.

Smoking is a known risk factor for developing RA. However, the effect of smoking on RA disease activity is not clear. To determine the effects of smoking on disease activity a study was conducted based on OBRI patients who provided a smoking status at the time of enrollment (baseline): never smoker, past smoker and current smoker. Numerous factors such as patient's demographics, treatments, and blood work (rheumatoid factor (RF) and general markers of inflammation) were compared according to smoking habits. Disease activity measures were estimated using statistical analysis after adjusting for the differences in age, sex and RF.

Out of a total of 2090 patients with an average age of 57.3 years, 77% were females), 343 were current smokers, 812 past smokers and 935 had never smoked. It was determined that 76.7% of current smokers were RF positive as compared to 70.9% of past smokers and 64.5% of never smokers. Once the data was adjusted to account for differences due to age, sex and RF, it was determined that current smokers also had a significantly higher (on average) number of tender joints and swollen joints and higher scores on other common disease activity measures. Analysis showed no significance for more DMARDs than biologics being used at baseline in smokers.

These study results indicate that amongst RA patients, smokers have worse disease activity outcome measures than non-smokers.