

Abstract

OBJECTIVES:

To analyse clinical severity/activity of rheumatoid arthritis (RA) according to smoking status.

METHODS:

The QUEST-RA multinational database reviews patients for Core Data Set measures including 28 swollen and tender joint count, physician global estimate, erythrocyte sedimentation rate (ESR), HAQ-function, pain, and patient global estimate, as well as DAS28, rheumatoid factor (RF), nodules, erosions and number of DMARDs were recorded. Smoking status was assessed by self-report as 'never smoked', 'currently smoking' and 'former smokers'. Patient groups with different smoking status were compared for demographic and RA measures.

RESULTS:

Among the 7,307 patients with smoking data available, status as 'never smoked,' 'current smoker' and 'former smoker' were reported by 65%, 15% and 20%. Ever smokers were more likely to be RF-positive (OR 1.32;1.17-1.48, $p<0.001$). Rheumatoid nodules were more frequent in ever smokers (OR 1.41;1.24-1.59, $p<0.001$). The percentage of patients with erosive arthritis and extra-articular disease was similar in all smoking categories. Mean DAS28 was 4.4 (SD 1.6) in non-smokers vs. 4.0 (SD 1.6) in those who had ever smoked. However, when adjusted by age, sex, disease duration, and country gross domestic product, only ESR remained significantly different among Core Data Set measures (mean 31.7mm in non-smokers vs. 26.8mm in ever smoked category).

CONCLUSIONS:

RA patients who had ever smoked were more likely to have RF and nodules, but values for other clinical status measures were similar in all smoking categories (never smoked, current smokers and former smokers).