Risc factors for coronary artery disease in patients with rheumatoid arthritis: systematic review

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Background

Patients with rheumatoid arthritis (RA) have reduced life expectancy, and increased risks of coronary heart disease (CHD), but is still little known about the link between these two epidemiological characteristics.

Aim

To estimate the prevalence of CHD and associated risk factors in patients with rheumatoid arthritis.

Methods

We made a rapid systematic review on PubMed with the following descriptors to assess risk factors: "rheumatoid AND (comorbidity OR mortality) AND myocardial ischemia". Systematic reviews and epidemiologic studies like cohort, case-control and cross-sectional were selected. Studies about DMARDs and biological agents were not included. The search was finalised in december of 2015. Two hundred and fifteen citations were retrieved. Thirty and seven studies were selected: 4 systematic reviews, 26 cohort, 6 case-control and 4 cross-sectional.

Results

Traditional risk factors including older, male, sedentarism, smoking, dyslipidemia, hypertension, DM and family history were not enough to explain the excess of CHD. There are some controversies about the role of glucocorticoids and NSAIDs drugs. Patients who had been followed up for 2.7y showed that reduction in the clinical disease activity index was associated with a reduction in risk. Few patients with current low disease activity, followed for 2.9y, experienced a first CHD event and a 6.9% fatality rate. Smoking, history of myocardial infarction, and >50 days of sick leave the year following RA onset were associated with increased risk.

Conclusion

The exposure time to high inflammatory activity of the disease, besides the traditional risk factor, was an important determining factor for increased risk for coronary heart disease in patients with rheumatoid arthritis.