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Evidence on comparative efficacy of single and combined DMARD therapy in rheumatoid arthritis.

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Abstract

Objective: To summarize evidence on comparative efficacy of 10 DMARDs in the treatment of rheumatoid arthritis (RA) through a critical review of randomized clinical trials (RCT).

Methods: We searched for publications of RCT, metanalysis or systematic reviews in MEDLINE, EMBASE, Spanish Medical Index (IME) and Cochrane Library, comparing two or more of the following DMARDs in the treatment of RA: antimalarials, azathioprine, cyclophosphamide, cyclosporin A, D-penicillamine, anti-TNF, leflunomide, methotrexate, oral and parenteral gold salts, and sulphasalazine. Data abstraction was carried out independently by two reviewers. The same two reviewers used a checklist (Jadad, 1996) to evaluate the methodological quality of the RCTs. The quality of evidence supporting each RCT results assessed by a modified Hadorn scale (Hadorn, 1996).

Main results: 287 articles out of 2,281 titles identified were selected. Of them, 162 were excluded because of lack of inclusion criteria, 13 were redundant, and 9 were already included in metanalysis. Thus, we finally included 103 articles derived from 91 RCT, which allowed 140 comparisons of therapeutic strategies. Only 30 out of 78 (38.4%) possible comparisons of DMARDs in monotherapy had been assessed in RCT. Twenty-three of these comparisons (76%) were unable to detect significant differences between DMARDs in terms of efficacy. Furthermore, the best quality of evidence was scored as B (studies with some methodological pitfalls) in 17 comparisons (56%). There were 20 comparisons of combined DMARD therapy with a single DMARD. While half of these comparisons showed combined therapy to be superior to monotherapy in patients who had failed to a single DMARD and quality of evidence was overall good (A1 or A" level of evidence in 50%), there is only one RCT that have compared two strategies of combined DMARD therapy in RA.

Conclusions: There is a lack of studies whose clinical results might help to clinician in the event of choosing one or another DMARD strategy in the treatment of RA. Specifically, while some combined therapies have shown their benefits when a patient fail with a single DMARD, no direct comparisons between these strategies have been assessed. Financial and practical constraints to develop RCT out of industry mentoring might explain why some of these RCT have not been designed.

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