Intensive management reduced disease activity in rheumatoid arthritis


Question
In patients with rheumatoid arthritis (RA), is intensive management (IM) more effective than routine care (RC) for reducing disease activity?

Methods
Design: Randomized controlled trial.
Allocation: Concealed.*
Blinding: Blinded (outcome assessors).*
Follow-up period: 18 months.
Setting: 2 National Health Service teaching hospitals in Glasgow, Scotland, UK.
Patients: 111 patients who were 18 to 75 years of age (mean age 53 y, 70% women) and had RA < 5 years with a disease activity score > 2.4 (1.6 = low disease activity, 2.4 = moderate, and 3.6 = high). Exclusion criteria were previous combination disease-modifying antirheumatic drug (DMARD) treatment or relevant liver, renal, or hematologic disorders.
Intervention: IM (n = 55) or RC (n = 55). Patients in the IM group began treatment with a new DMARD and were seen monthly by the same rheumatologist for injection of up to 3 swollen joints with triamcinolone acetonide up to 120 mg per visit. After 3 months and at any assessment thereafter, patients with a disease activity score > 2.4 received an escalation of oral therapy according to a protocol for tight control of disease activity. This usually comprised a progression from monotherapy to triple therapy and thereafter to protocols that included cyclosporine or leflunomide. RC-group patients were reviewed every 3 months with no composite measure of disease activity used in clinical decision making. Patients with active synovitis received a DMARD. Corticosteroid intraarticular injections were given as for patients in the IM group.

Outcomes: Decrease in disease activity score and proportion of patients with a good response (European League Against Rheumatism [EULAR] definition: disease activity score < 2.4 and a decrease from baseline of > 1.2). Secondary outcomes were remission rates (EULAR definition: disease activity scores < 1.6), American College of Rheumatology (ACR) response rates, visual analogue pain score, assessor's global assessment of disease activity, Sharp radiologic score, and patient function.

Patient follow-up: 1 patient withdrew after randomization; of 110 patients, 103 (94%) completed the trial. 110 patients were included in the intention-to-treat analysis.

Main results
IM-group patients had a greater decrease in disease activity score than did RC-group patients (Table). More IM-group patients had a good EULAR response, remission, and an ACR 70 response (Table). IM-group patients also had greater improvements in other measures of disease activity and functional outcome.

Conclusion
In patients with rheumatoid arthritis, intensive management reduced disease activity and slowed radiographic progression more than routine care.

Source of funding: Chief Scientist's Office, Scottish Executive.
For correspondence: Dr. D. Porter, Gartnavel General Hospital, Glasgow, Scotland, UK. E-mail Duncan.porter@northglasgow.scot.nhs.uk.

*See Glossary.

Intensive management vs routine care for rheumatoid arthritis at 18 months†

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Change from baseline</th>
<th>Difference (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>IM (n = 55)</td>
<td>RC (n = 55)</td>
</tr>
<tr>
<td>Disease activity score</td>
<td>−3.5</td>
<td>−1.9</td>
</tr>
</tbody>
</table>
| Event rates               |                      |                     | EULAR good response 82% 44% 88% (38 to 166) 3 (2 to 5)
|                           |                      |                     | EULAR remission 65% 16% 300% (122 to 658) 3 (2 to 4)
|                           |                      |                     | ACR 70 response 71% 18% 290% (126 to 611) 2 (2 to 3) |

†EULAR = European League Against Rheumatism; ACR = American College of Rheumatology. Other abbreviations defined in Glossary; RBI, NNT, and CI calculated from data in article.