
Article:
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Drug-free inactive disease in Juvenile Idiopathic Arthritis can be achieved for 40% of patients

Study Design: Randomised, single-blind trial

Study Question
Setting: The Netherlands

Patients: 94 patients with new-onset (symptom duration <18 months) JIA who had not been exposed to previous disease-modifying anti-rheumatic drug (DMARD) therapy.

Interventions: Conventional systemic (cs) DMARD monotherapy (methotrexate (MTX) or sulfasalazine) vs MTX plus 6 week tapered course of prednisolone vs MTX plus etarnercept.

Outcomes: Time to inactive disease (TID); time to flare (TTF) after first episode of drug-free inactive disease (DFID).

Main Results:
The main study outcomes are summarised in table 1.

Outcomes	csDMARD(n=32)	MTX plus prednisolone(n=32)	MTX plus etanercept(n=30)
Median TID (months)	9 (5.3-15.0)	9 (6.0-12.0)	9 (6.0-12.0)
Median TTF (months)	4.5 (3.0-9.0)	3.0 (3.0-3.0)	3.0 (3.0-7.5)
Inactive disease after 24 months	71%	70%	72%
DFID after 24 months	45%	31%	41%

Table 1: Summary of TID, required drug changes and sustained DFID in each treatment arm.

CONCLUSION:
Despite small numbers, there did not appear to be any significant difference between treatment modalities when achieving inactive disease. DFID was shown to be an achievable target for a significant minority of patients with new-onset JIA.

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Commentary: Inactive disease in JIA has long been considered a realistic goal, due to the availability of effective pharmacological therapies (1). This study goes one step further, and explores the possibility of maintaining inactive disease following cessation of medications.

This study is too small to draw any firm conclusion about the equivalence of the three treatment strategies, but intriguingly suggests the speed of improvement and rate of drug free remission are similar across agents. Previous studies have suggested that newer biological therapies may be more effective at inducing disease remission than conventional anti-rheumatic therapies (2). This finding requires further study. The long-term use of corticosteroid treatment in paediatric rheumatological disease is associated with significant morbidity (3), and treating clinicians often aim to use alternative therapies in order to reduce the requirement for steroid treatment. However, there has been less drive to discontinue the so-called "steroid-sparing" agents.

Whilst a single study of this size is unlikely to result in a change of practice for most paediatricians, it does remind us that medication cessation is a reasonable goal once clinical remission has been obtained.

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