



## **DISCONTINUATION OF ANTIRHEUMATIC MEDICATION AND REACTIVATION OF JUVENILE IDIOPATHIC ARTHRITIS: DATA FROM A REFERRAL SERVICE**

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### **BACKGROUND**

Patients with juvenile idiopathic arthritis (JIA) in remission should discontinue the therapy but there are no clear criteria how to manage this. This study evaluated the discontinuation methods of disease-modifying antirheumatic drugs (DMARD) in JIA patients in remission and its association with disease reactivation.

### **MATERIALS AND METHODS**

Retrospective study with JIA patients on remission who discontinued therapy, including synthetic and biologic DMARDs, as monotherapy or combined, due to disease remission. Reactivation was considered as presence of arthritis in one or more joints, systemic symptoms, or uveitis.

### **RESULTS**

53 patients were evaluated (41 girls), mostly persistent oligoarticular (n=21) and polyarticular (n=21) JIA, with mean age of 16.1 ( $\pm$  5.1) years and mean age at JIA onset 6.8 ( $\pm$  4.1) years. All patients had used synthetic DMARDs and 8 associated biological DMARDs. The median active JIA time since the beginning of the therapy was 15 months. The mean remission time after complete therapy discontinuation was 15.2 ( $\pm$ 7.1) months, with 34 (64.2%) patients remaining on remission and 19 (35.8%) reactivating at least once. The mean remission time off medication of patients who reactivated was 17.4 ( $\pm$ 23.6) months, lower than the mean remission time off medication of patients still in remission (35.4  $\pm$ 28.7 months) ( $p$  = 0.006). There was no difference between patients who reactivated and those who maintained remission regarding gender ( $p$ =0.50), JIA subtype ( $p$ =0.68), presence of antinuclear antibodies ( $p$ =1), and rheumatoid factor ( $p$ =1). Patients using biological DMARDs reactivated more ( $p$ =0.02) and had shorter time in remission off medication (16.38 $\pm$ 26.2 months) than those using only non-biological DMARDs (31.1 $\pm$ 28.2 months) ( $p$ =0.05). Regarding discontinuation of medication, 39 (73.6%) patients progressively tapered medication (dose reduction or increased medication time interval) and 14 (26.5%) stopped the medication at once. There was no difference in the medication discontinuation method and disease reactivation ( $p$ =0.19) or remission time off medication (progressive discontinuation 29.2 $\pm$ 27 x at once discontinuation 28.1 $\pm$ 32.23 months) ( $p$ =0.5).

### **CONCLUSION**

Patients using biological DMARDs reactivated more and had shorter remission time off medication than those who only used non-biological DMARDs. The medication discontinuation method didn't alter reactivation rates and time in remission off medication. It is possible that progressive reduction of medication in JIA therapy is not necessary, but patients using biological DMARDs should be carefully evaluated before discontinuation, due to higher reactivation rates and shorter remission time without medication.