

The Frequency of Aspirin Hepatotoxicity in Children with Acute Rheumatic Fever

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INTRODUCTION

Aspirin is the most commonly used anti-inflammatory drug in treatment of acute rheumatic fever (ARF). During therapy aspirin hepatotoxicity may develop. However present studies have been based on symptomatic patients. This study was planned to establish the frequency of hepatotoxicity in children with ARF treated with aspirin.

METHODS

One hundred and thirty six patients who were treated with aspirin for ARF (first attack, rebound, reactivation) were included in the study. Aspirin (maximum dose is 3,5 g/day) was started at a dose of 100 mg/kg in patients with carditis and 70 mg/kg in patients with arthritis. Transaminase levels were checked before and 3th, 7th, 14th and 30th days of treatment and also at the days that patients showed symptoms of hepatotoxicity. Patients have been questioned at all visits for hepatotoxicity findings.

RESULTS

The number of patients and the treatments in the study are 136 and 144, respectively. Hepatotoxicity occurred in 39,5% (57) of treatments, and 31% (18) of those the patients were symptomatic. In patients with hepatotoxicity, mean alanine and aspartate aminotransferase levels were 248 ± 347 U/L and 229 ± 309 U/L, respectively. At 15 treatments, transaminase levels decreased to normal values in an average of 21 ± 15 days by reducing the dose to 65 mg/kg. At 42 treatments medicine was changed because the transaminase levels kept rising despite dose reduction (nonsteroid anti-inflammatory drug =8, prednisolone=34). At 40 treatments transaminase levels returned to normal values in a mean of 24 ± 14 days. In 2 patients whose transaminase levels have continued rising, hepatitis B and cytomegalovirus infections were detected.

CONCLUSION

The incidence of aspirin hepatotoxicity in ARF is considerably high and it is necessary to check transaminase levels periodically, even if patients treated with aspirin are asymptomatic. In case of toxicity, follow up after dose reduction and a change in therapy is the suitable option if elevation in transaminase levels persists despite dose reduction. Nonsteroid anti-inflammatory drugs seemed to be an effective alternative for patients with aspirin hepatotoxicity. In patients whose transaminase levels elevation persists, attention must be paid to infectious hepatitis.