

A Randomized Trial of Maintenance Therapy for Vasculitis Associated with Antineutrophil Cytoplasmic Autoantibodies

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ABSTRACT

Background The primary systemic vasculitides usually associated with autoantibodies to neutrophil cytoplasmic antigens include Wegener's granulomatosis and microscopic polyangiitis. We investigated whether exposure to cyclophosphamide in patients with generalized vasculitis could be reduced by substitution of azathioprine at remission.

Methods We studied patients with a new diagnosis of generalized vasculitis and a serum creatinine concentration of 5.7 mg per deciliter (500 µmol per liter) or less. All patients received at least three months of therapy with oral cyclophosphamide and prednisolone. After remission, patients were randomly assigned to continued cyclophosphamide therapy (1.5 mg per kilogram of body weight per day) or a substitute regimen of azathioprine (2 mg per kilogram per day). Both groups continued to receive prednisolone and were followed for 18 months from study entry. Relapse was the primary end point.

Results Of 155 patients studied, 144 (93 percent) entered remission and were randomly assigned to azathioprine (71 patients) or continued cyclophosphamide (73 patients). There were eight deaths (5 percent), seven of them during the first three months. Eleven relapses occurred in the azathioprine group (15.5 percent), and 10 occurred in the cyclophosphamide group (13.7 percent, $P=0.65$). Severe adverse events occurred in 15 patients during the induction phase (10 percent), in 8 patients in the azathioprine group during the remission phase (11 percent), and in 7 patients in the cyclophosphamide group during the remission phase (10 percent, $P=0.94$ for the comparison between groups during the remission phase). The relapse rate was lower among the patients with microscopic polyangiitis than among those with Wegener's granulomatosis ($P=0.03$).

Conclusions In patients with generalized vasculitis, the withdrawal of cyclophosphamide and the substitution of azathioprine after remission did not increase the rate of relapse. Thus, the duration of exposure to cyclophosphamide may be safely reduced.

Source Information

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