

A-04 Efficacy of single dose combinations of albendazole, ivermectin, and diethylcarbamazine for treatment of Bancroftian filariasis

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Filariasis control programmes are increasingly moving toward a strategy of repeated safe and effective single dose therapy. Recent studies have shown that multiple single dose therapy with albendazole has significant antifilarial activity. This clinical trial was performed to determine safety, tolerability and efficacy of albendazole in several single dose combination regimens for Bancroftian filariasis.

50 men with asymptomatic microfilaraemia (MF) were randomly assigned to treatment with single dose albendazole (Alb 600 mg), Alb with ivermectin (400mcg/kg), Alb with diethylcarbamazine (DEC, 6mg/kg), or DEC with ivermectin. Clinical and laboratory safety were closely monitored and microfilaraemia and filarial antigen levels were determined over a period of 15 months post-treatment.

All 4 treatments significantly reduced MF counts, but Alb/ivermectin was clearly the most effective regimen for clearing MF from night blood, as 9 of 13 subjects (69%) were MF negative by membrane filtration 15 months post-treatment compared to 1 of 12 (8%), 3 of 11 (27%) and 3 of 10 (30%) in groups treated with Alb, Alb/DEC, and DEC/ivermectin, respectively. Filarial antigen test results suggested that all 4 treatments had significant activity against adult *W. bancrofti*. Alb/DEC had the greatest activity by this measure with antigen levels decreasing by 77%, 15 months after therapy. All 4 regimens were tolerated and clinically safe, although mild, self-limited systemic reactions to therapy were observed in all treatment groups.

These results suggest that Alb/ivermectin is a safe and effective single dose regimen for suppression of microfilaraemia in Bancroftian filariasis that could be useful for large scale control programmes.