

### **Long term efficacy of single dose combinations of Albendazole, Ivermectin and Diethylcarbamazine for the treatment of Bancroftian Filariasis**

In a 'blind' trial of 47 male asymptomatic microfilaraemic subjects with *Wuchereria bancrofti* infection, the safety, tolerability and filaricidal efficacy of a single dose of combinations of albendazole 600 mg with ivermectin 600mcg/kg, albendazole 400mg with ivermectin 200 mcg/kg and albendazole 400mg with diethylcarbamazine citrate (DEC) 6mg/kg were assessed over a period of 24 months after treatment. All subjects had pretreatment microfilariae (mf) counts over 100/mL. Following treatment all 3 groups showed substantial reductions in microfilaraemia to less than 3% of the respective pre-treatment levels. The ivermectin containing regimes showed a greater clearance compared to the DEC containing regime upto 6 months post-treatment. At 24 months the percentage pre-treatment microfilaraemia were equivalent in the ivermectin containing regimes (2.31% and 2.87%, for the 600mcg and 400mcg regimes respectively). The alb/DEC group had a gradual decline in mf over the study period and at 24 months the mf was 0.44% of pre-treatment value. Filarial antigen tests suggested that all 3 treatments had significant activity against adult *W.bancrofti*; alb/DEC combination had the greatest activity according to this test, with antigen levels decreasing to 30.5% of pre-treatment antigen concentrations, 24 months after therapy. All 3 treatments were clinically safe and well tolerated. These results suggest that a single dose of albendazole 400mg together with DEC 6mg/kg is a safe and effective combination for suppression for microfilaraemia of bancroftian filariasis and could be used in filarial control programmes. The broad spectrum anthelmintic action of albendazole gives added advantages in mass treatment.