

Treatment of human schistosomiasis mansoni. III. Long-term effects of treatment and retreatment

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Abstract:

Group mean *Schistosoma mansoni* reinfection patterns are presented for 2 years after treatment with oxamniquine in 1981 of over 100 9- to 16-year-old Kenyan schoolchildren, and for one year after retreatment in 1983 with either oxamniquine or praziquantel when most (nearly 700) infected people in the whole community were treated. Quality control confirmed comparable Kalo egg counts throughout the study. Continuing transmission after 1981 raised prevalence to nearly its original level within 6 months, but intensity remained suppressed throughout the 2 year follow-up and very few children reacquired heavy infections (>400 eggs/g). Age and sex had significant effects: reinfection diminished with age, especially among boys — a pattern not apparently attributable to differential water contact. Children with heavy pretreatment infections tended to develop heavy reinfections but this trend was not statistically significant on a group basis, nor were similar trends during the period of less pronounced transmission following the 1983 community treatment. Oxamniquine was equally effective in children receiving it in both 1981 and 1983, and the efficacy of praziquantel resembled that of oxamniquine. In this area of Kenya, repeated chemotherapy will be needed to contain transmission, probably annually or biennially, unless supplemented with other, effective control measures. These findings confirm the beneficial effects of treating even a limited segment of a community at intervals of a year or more without necessarily stopping transmission. They are also compatible with recent findings on potential immune mechanisms in man.