

Schistosoma mansoni induced kidney disease in children in an endemic area of Machakos District, Kenya.

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Abstract:

The association between *Schistosoma mansoni* infection and kidney lesions was investigated in school children selected from three primary schools in Machakos District, Kenya, namely Miu (n = 159), Kitengei (n = 160) and Misuuni (n = 99) schools. The children were examined parasitologically for *S. mansoni* infection, clinically for enlargement of the liver and spleen, and biochemically for proteinuria and serum and urine creatinine. High prevalences of *S. mansoni* infection, ranging from 84-96%, were seen in all the schools, but the geometric mean intensity of egg excretion varied, being relatively low in Misuuni (31 eggs/g), medium in Miu (182 eggs/g) and high in Kitengei (413 eggs/g). The prevalence of pathological proteinuria (≥ 200 mg/l) in the schools ranged from 10.1% in Miu to 28.8% in Kitengei. No difference in the levels of proteinuria was noted between age or sex groups. No association between intensity of infection and pathological proteinuria was observed in any of the schools, nor was any correlation between organomegaly and proteinuria observed. However, significant correlations between malaria and organomegaly ($p < 0.001$) and between malaria and proteinuria ($p < 0.05$) were observed when pooling data from all schools. These findings suggest that *S. mansoni* induced nephrotic syndromes are not common in children from this highly endemic area of Kenya.