Abstract

Haematuria and proteinuria as detected by chemical reagent strips correlated moderately (r = 0.7) with prevalence and intensity of infection with Schistosoma haematobium in an area of Anambra State, Nigeria. Differences attributable to age and sex were also reflected in a similar pattern, all peaks occurring in the 5-14 year age group. The differences observed with varying levels of intensity and haematuria at both 10 and 50 erythrocytes/microliter (p < 0.001) and proteinuria at 0.3 g/dl (p < 0.01) were statistically significant. At a proteinuria level of 1 g/dl, the observed differences were however not statistically significant (p > 0.5). The percentage of specimens from children (0-14 years) positive for S. haematobium eggs and with at least traces of haematuria and proteinuria (63.4% and 95%, respectively) was higher than in adults (33.3% and 80.2%, respectively). All individuals with more than 50 eggs/10 ml of urine were correctly identified using both indices either separately or in combination. For egg counts of less than 50 eggs/10 ml of urine, false diagnosis occurred in only 5% of all specimens examined. The sensitivity and specificity of haematuria and proteinuria at trace quantities was very high, but haematuria had a higher predictive value for a positive test (PvPt) and was considered the overall better indicator. A combination of both indices did not significantly increase the PvPt. When trace haematuria and moderate proteinuria were combined, both the sensitivity, specificity and PvPt were all above 90%, giving the best overall values in all the combinations made.