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# Antibody response patterns against *Schistosoma haematobium* in some Sudanese individuals residents in an endemic area

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**Background**: Humans infected with schistosoma parasite demonstrate substantial immune responses against both adult worms and eggs. This response can be studied in different age group in both males and females in exposed and infected population. The study aimed to determine the humoral immune responses of Sudanese residents in an endemic area of *Schistosoma haematobium*.

**Methods**: Syringe filtration techniques were used to detect *Schistosoma haematobium eggs*. To rule out *Schistosoma mansoni* and other helminths infection, Kato Katz technique for the examination of stool was used. One hundred twenty eight individuals were included in the study. Twenty one subjects who were *Schistosoma haematobium* negative participated in the study as a control group. Different ELISA techniques were used to detect different anti-*Schistosoma haematobium* antibodies.

**Results**: The mean infection intensity was 61.92 eggs per 10 ml urine. Peak infections were found among the age group of 3-13 year. 53.1% had light infection and 46.9% had heavy infection. High levels of anti-soluble egg antigen (SEA) IgE was detected in infected individuals in the age group range (13-23 years) while low levels were observed in individual of >23 year of age. The highest anti- (SEA) IgA level was detected in old patients. The highest anti-SEA IgM levels were found in children aged 3-13 year. Females produced high levels of anti-SEA IgE, IgM and IgG, while males produced high levels of IgA.

**Conclusion**: These results showed high production of IgE which may protect the host until development of other immune responses and may also protect the host from re-infection.

## Biography

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