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Ocular changes in *Schistosoma mansoni* infected hamsters

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Ocular lesions have been reported in patients with schistosomiasis; however, the problem with studying schistosomal infection of the human eye is that biopsies are almost impossible to take and histopathological examination of suspicious lesions can only be undertaken during post-mortem or after enucleation. This work aimed to study the possible effects and pathogenesis of schistosomiasis on the eye. This study involved 55 hamsters; five hamsters remained non-infected and the remaining 50 hamsters were infected with *Schistosoma mansoni* cercariae. Infected hamsters were sacrificed on weeks 8, 12, 16 and 20 post-infection (pi). Eye sections were prepared and stained for histopathological and immunohistochemical studies. Histopathological changes detected in hamsters infected after 16 and 20 weeks included looseness and oedema of the innermost retinal layers together with hyperplastic polypoid growth. Neither eggs nor granulomata were detected in eye sections throughout the experimental period. Deposition of *S.mansoni* antigen was revealed in 35% of infected hamsters. Later, on weeks 16 and 20 pi, moderate subepithelial conjunctival deposits and marked subchoroidal and scleral deposition were detected. In conclusion, the deposition of schistosomal antigen and immune complexes may play a pivotal role in the ocular changes that occur in schistosomiasis, even in the absence of detectable *Schistosoma* eggs. Schistosomiasis should be suspected in cases with unexplained ophthalmological findings, especially in endemic areas.

Biography

Howaida Ismail Hussein Ismail has completed her PhD from Tanta University, Egypt. She has promoted to be a Professor of Medical Parasitology, then worked as a Deputy Director of Foreign Students Affairs, Ministry of Higher Education, Egypt. She has published more than 30 papers in reputed journals and has been serving as an Editorial Board Member of repute.

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