

Histopathology of chronic schistosomiasis in sub-Saharan Africa: Experience from the Democratic Republic of Congo

Histopathologie de la Schistosomiase chronique en Afrique subsaharienne : Expérience de la République Démocratique du Congo

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Summary

Background. Schistosomiasis is a major neglected tropical disease (NTD) of public health significance. Despite high prevalence in some developing countries, there remains a dearth of knowledge of its systemic involvement in sub-Saharan Africa (SSA).

Objective. To describe histopathological patterns in chronic schistosomiasis in the Democratic Republic of Congo (DR Congo).

Methods. In a retrospective review, one hundred thirty-eight (138) cases of schistosomiasis were identified in the archived consecutive biopsies of the Department of pathology at the University of Kinshasa hospital between 1963 and 2000.

Results. Patients with a reported gender were 60 males and 60 females; (sex ratio 1:1). 20/138 (14.4%) were children under age of fifteen. Most patients originated from urban Kinshasa. Organ pathology indicated a multi-organ involvement. In the digestive tract: liver (n=66 cases, 47.8%), rectum (n=17 cases, 12.3%), appendix (8 cases, 5.7%), epiploon (3 cases, 2.1%), spleen (1 case, 0.7%), and small bowel (1 case, 0.7%). In the urogenital system: bladder (16 cases, 11.6%), ureter (1 case, 0.7%), cervix (6 cases, 4.3%) and vagina (4 cases, 4.3%). Unusual sites like skin (n=4 cases, 2.8%), testis (n=1, 0.7%) and submandibula area (n=1, 0.7%) were also identified whereas 9 cases were of unspecified site. By histological examination, three distinctive patterns emerged. Majority of lesions were specific granulomatous inflammation with viable or calcified eggs. Free deposited eggs trapped in uninflamed tissues and viable eggs embedded in malignant proliferations (n=15; 10.1%) accounted for the rest of the lesions. Both *S. mansoni* and *S. haematobium* were involved in different lesions.

Conclusion. This study highlights the vast spectrum of systemic involvement in chronic schistosomiasis in DR Congo. While specific inflammation and free deposited eggs are rather classic, the novel salient histological finding was the overwhelming schistosomiasis-associated malignancies. This finding urges for further large-scaled studies of this emerging pathology.

Keywords: chronic schistosomiasis, deposited eggs, histological patterns, multi-organ, involvement, DR Congo

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