

Bilharzial Appendicitis Caused by *Schistosoma Mansoni*: A Case Report from the Democratic Republic of Congo

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Key Clinical Message

Histopathological examination of appendectomy specimens remains crucial in endemic areas, as rare cases of *Schistosoma mansoni*-related appendicitis may be overlooked. Systematic analysis ensures accurate diagnosis and guides postoperative antiparasitic therapy.

1. Introduction

Appendicitis is one of the most frequent inflammations of the digestive tract and is usually treated surgically. Appendectomy is among the most common surgical procedures worldwide, including in the Democratic Republic of Congo (DRC). However, in most cases, appendectomy specimens are not sent to pathology laboratories but are instead discarded, limiting the confirmation of histopathological causes of appendicitis. Among the rare etiologies, *Schistosoma mansoni* is known to cause chronic appendicitis in endemic regions.

2. Case History and Examination

We report the case of a 22-year-old female who presented to the Surgery Department of CHE IME Kimpese, Kongo Central Province, with intermittent pain in the right iliac fossa and periumbilical region, fever, nausea, vomiting, diarrhea, and cramps in the right lower limb. Her medical history revealed that symptoms had persisted for 10 days. Initial management at home with vermox and indomethacin suppositories was unsuccessful. On examination, her blood pressure was 110/80 mmHg, temperature 36.3°C,

respiratory rate 18/min, and heart rate 90 bpm. She appeared ill, with abdominal tenderness in the right iliac fossa and periumbilical region, with guarding and a positive Rovsing sign. A diagnosis of acute appendicitis associated with intestinal parasitosis was suspected.

3. Differential Diagnosis, Investigations and Treatment

Laboratory results showed leukocytosis with significant eosinophilia. Direct stool examination revealed yeast, but stool concentration by the Kato Katz technique was not performed. Abdominal ultrasound was not carried out due to financial constraints. The patient underwent surgery, and the appendectomy specimen was sent to the Pathology Department of CHU Renaissance. Histopathological analysis demonstrated calcified *Schistosoma mansoni* eggs in the lamina propria and submucosa of the appendix wall (Figure.1). The patient received praziquantel (Biltricide) 3 tablets as a single dose after surgery. Follow-up was favorable with complete resolution of symptoms and no complications at 1 month. Stool examination at 3 months was negative for parasites.



Figure 1: Appendectomy Specimen

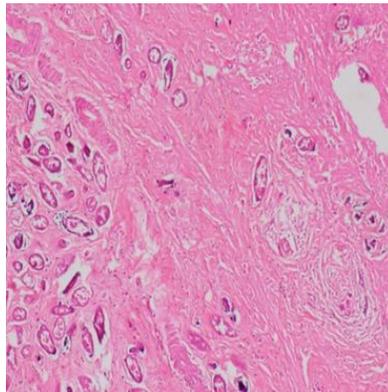


Figure 2: Calcified *Schistosoma Mansoni* Eggs Stained with Hematoxylin and Eosin (H&E).

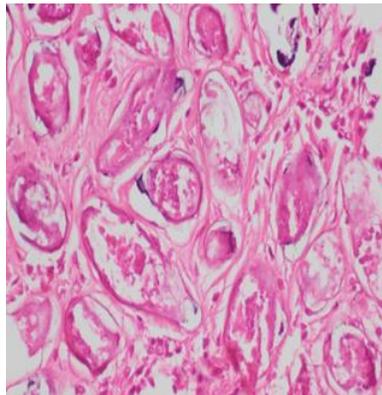


Figure 3: *Schistosoma Mansoni* Eggs Stained with H&E

4. Conclusion and Results (Outcome and Follow-Up)

The postoperative course was uneventful, and the patient fully recovered after treatment with praziquantel. This case highlights the importance of histopathological analysis of appendectomy specimens in endemic regions, as it allows the detection of rare but significant etiologies such as *Schistosoma mansoni*.

5. Discussion

Bilharzial appendicitis is a rare clinical entity. Few cases have been reported in the literature, including cases in Burkina Faso,

Senegal, and Madagascar. The World Health Organization recognizes schistosomiasis as the second most widespread parasitic disease after malaria. Endemic areas include the Nile Valley, West and Southern Africa, parts of Madagascar, and the Democratic Republic of Congo, particularly Kimpese. Our case emphasizes the need to always consider parasitic etiologies in endemic regions, especially in young adults, and to send all appendectomy specimens for histopathological analysis.

Patient Consent

Written informed consent was obtained from the patient for publication of this case report and accompanying images, in accordance with the journal's patient consent policy.

References

1. Tchouanguem, H. N., Fouelifack, F. Y., Keugoung, B., Fouelifa, L. D., & Moyou, R. S. (2016). Current status of schistosomiasis in Santchou health area,(Santchou Health District, Cameroon western region). *The Pan African Medical Journal*, 24, 137-137.
2. Dakoni, N., Saotoing, P., Tchawe, R., Koe, V., Ndikwé, J. L., Nlôga, A. N., & Somo, R. M. (2015). Epidemiological survey on schistosomiasis caused by *Schistosoma haematobium* and *Schistosoma mansoni* in primary schools in the Sub-Division of Taïbong-Dziguilao, Far-North Region Cameroon. *Journal of Applied Biosciences*, 90, 8397-8407.
3. Njiokou, F., Onguene, A. O., Tchuente, L. T., & Kenmogne, A. (2004). Schistosomose urbaine au Cameroun. *Bull. Soc. Pathol. Exot*, 97(1), 37-40.
4. Wambui, C. W., Madinga, J., Ashepet, M. G., Anyolitho, M. K., Mitashi, P., & Huyse, T. (2024). Knowledge, attitudes and practices toward female genital schistosomiasis among community women and healthcare professionals in Kimpese region, Democratic Republic of Congo. *PLOS Neglected Tropical Diseases*, 18(7), e0011530.
5. Linsuke, S., Nundu, S., Mupoyi, S., Mukele, R., Mukunda, F., Kabongo, M. M., ... & Lutumba, P. (2014). High Prevalence of *Schistosoma mansoni* in Six Health Areas of Kasansa Health Zone, Democratic Republic of the Congo. *PLoS neglected tropical diseases*, 8(12), e3387.
6. Thiam, I., Doh, K., Seck, M., Kammoun, C., & Woto Gaye, G. (2020, May). Appendicitis schistosomiasis. In *Annales de Pathologie* (Vol. 40, No. 5, pp. 411-413).
7. Petri, D., Baglietto, L., Tavošchi, L., Mazzilli, S., Cocco, N., Ranieri, R., ... & Mavrou, J. (2023). Evaluating vaccine and health literacy in european prisons: A cross-sectional study. In *17th World Congress on Public Health Supplemental material* Vol. 5.
8. Guiguen, C., Autier, B., Gangneux, J. P., & Chabasse, D. (2021). Coprologie parasitaire: conduite de l'examen et pièges diagnostiques. *Revue Francophone des Laboratoires*, 2021(529), 32-42.
9. Freer, J. B., Bourke, C. D., Durhuus, G. H., Kjetland, E. F., & Prendergast, A. J. (2018). Schistosomiasis in the first 1000 days. *The Lancet Infectious diseases*, 18(6), e193-e203.
10. Ciddio, M., Mari, L., Sokolow, S. H., De Leo, G. A., Casagrandi, R., & Gatto, M. (2017). The spatial spread of schistosomiasis: A multidimensional network model applied to Saint-Louis region, Senegal. *Advances in water resources*, 108, 406-415.
11. Verjee, M. A. (2019). Schistosomiasis: still a cause of significant morbidity and mortality. *Research and reports in tropical medicine*, 153-163.
12. Perez-Saez, J., Mande, T., & Rinaldo, A. (2019). Space and time predictions of schistosomiasis snail host population dynamics across hydrologic regimes in Burkina Faso. *Geospatial health*, 14(2).
13. Broadway, K. M. (2018). Novel Perspectives on the Utilization of Chemotactic Salmonella Typhimurium VNP20009 as an Anticancer Agent.
14. SIDIBE, M. (2018). Appendicite Aigue Chez L'enfant Dans Le Service De Chirurgie Pediatrique Du Chu Gabriel Toure (Doctoral dissertation, USTTB).
15. Diarra, C. B. (2020). Appendicite aiguë au CSRéf de Ouéléssébougou (Doctoral dissertation, Université des Sciences, des Techniques et des Technologies de Bamako).
16. DILAI, M. O. (2009). Les appendicites aiguës: étude rétrospective sur 562 cas.
17. Helmy, A. H., Magdi, M., Sabri, T., & Abou Shousha, T. (2000). Appendicitis; appendectomy and the value of endemic parasitic infestation. *The Egyptian Journal of Surgery*, 19(2), 87-91.
18. Roth, G. A., Abate, D., Abate, K. H., Abay, S. M., Abbafati, C., Abbasi, N., ... & Borschmann, R. (2018). Global, regional, and national age-sex-specific mortality for 282 causes of death in 195 countries and territories, 1980–2017: a systematic analysis for the Global Burden of Disease Study 2017. *The lancet*, 392(10159), 1736-1788.

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