SciMedCentral

Annals of Clinical Pathology

Short Note

Diagnosis Problematic of Myelopathy Due to Schistosomiasis in the Sub-Saharan African Context and Some Area

Boubacar S[1], Diagne NS[1], Maiga Y[2], Diop AM[1], Djibrilla BA[3], Ndiaye M[1], Diop AG[1], and Ndiaye MM[1]

[1]*Department of Neurology, Fann National Teaching Hospital, Senegal*
[2]*Department of Neurology, Gabriel Touré University Hospital, Mali*
[3]*Department of Medicine, National Hospital, Niger*

***Corresponding author**

Soumaila Boubacar, Department of Neurology, Fann National Teaching Hospital, Po Box 5035, Senegal, Tel: +221 777514875; Email: abounadjma@yahoo.fr

Submitted: 02 August 2016

Accepted: 03 August 2016

Published: 22 August 2016

ISSN: 2373-9282

Nerve locations of schistosomiasis are exceptional. [1] Schistosomiasis is endemic to South America, sub - Saharan Africa, Asia, the Middle East, and the Caribbean Islands [2].

In sub - Saharan Africa, 1% to 5% of non traumatic spinal cord injuries are attributed to spinal schistosomiasis [3]. However, in the absence of early diagnosis followed by appropriate treatment, urogenital schistosomiasis can be diagnosed at the stage of neurological complications in particular [4].

Schistosomiasis is an important parasitic disease, which affects more than 200 million people in 74 countries around the world, causing approximately 250,000 deaths per year (van der Werf et al., 2003). Three major *schistosome* species infect human beings. Urinary schistosomiasis, in which the bladder is affected, is caused by *Schistosoma haematobium*, and occurs in Africa and the Middle East. Intestinal schistosomiasis results from infection with *Schistosoma japonicum*, endemic in Asia, and *Schistosoma mansoni*, endemic in Egypt, northern and southern Africa, some West Indies islands and South America (Chitsulo et al., 2000) [4]. Schistosomiasis continues to be a significant public health problem in tropical countries such as Brazil. Even though drug treatment in endemic areas has been shown to be efficient for controlling morbidity, it does not reduce prevalence due to constant re infections. Therefore, a long - term disease control strategy is needed combining mass chemotherapy with a protective vaccine. Although the field of vaccine development has experienced more failures than successes, encouraging results have been obtained in recent years using defined recombinant derived Schistosoma mansoni antigens [5].

In general, the prevalence of infectious myelopathies varies in the literature because it depends on strict or not the selected biological criteria, completeness of examinations and the sensitivity of the proposed tests. Cases of neurological complications of schistosomiasis rarely reported in the literature [3].

Four forms are typically reported:

1. The form of myelitis
2. The compressive form
3. The radicular form
4. Vascular form [6,7]

The difficulties of the biological diagnosis lead to only report in the literature that some isolated cases of confirmed infectious myelopathy. Part of indeterminate myelopathies could possibly be attached to an infectious cause. Residual disability of these infectious myelopathies varies greatly and there is little consensus data on the diagnostic and therapeutic attitude to adopt in these cases. This is because the definitive diagnoses is based on histological evidence but are rarely put in evidence in many countries in the world in general and in the African context in particular. This makes it difficult Accountability signs to the suspected infection because the interval between exposure and onset of symptoms varies from one month to more than 6 years [6]. A few isolated cases have been reported in Africa like Senegal (West Africa) [4;8], Morocco (North Africa) [6].

We reported in March 2016 the case of a young Senegalese man with a myeloradiculitis due to *Schistosoma haematobium* and had evolved following the etiological treatment associated with physiotherapy [4]. The diagnosis of *Schistosoma haematobium* myeloradiculitis was made in front of a positive serum serology for S. haematobium, presence of *S. haematobium* eggs in urine, hyperproteinorachia, endemicity of *S. haematobium* in the region where the patient was originating and a past medical history of macroscopic hematuria in a context of river bathing. There was also no arguments for another cause to these neurological manifestations [4].

Full neurologic recovery is observed in 30% of all patients affected by spinal schistosomiasis [9]

So it is necessary that the scientific societies of 'tropical countries' may develop diagnostic criteria for these parasitic myelopathies to harmonize clinical research results.

REFERENCES

1. Bird AV. Schistosomiasis of the central nervous system.In: PJ Vinken PJ, Bruyn GW. eds. Handbook of Clinical Neurology, vol35, Amsterdam: North-Holland, 231-41. 1978.
2. Betting LE, Pirani C Jr, de Souza Queiroz L, Damasceno BP, Cendes F. Seizures and cerebral schistosomiasis. Arch Neurol. 2005; 62:1008-1010.
3. Scrimgeour EM. Non-traumatic paraplegia in northern Tanzania. Br Med J (Clin Res Ed). 1981; 283:975-978.
4. Boubacar S, Diagne NS, Ben Adji DW, Diop AM, Seydi M, Maiga Y, et al. Myéloradiculite à *Schistosoma haematobium*: à propos d'une observation à Dakar (Sénégal). Bull. Soc. Pathol. Exot. 2016; 109: 77-79.
5. Oliveira SC, Fonseca CT, Cardoso FC, Farias LP, Leite LC. Recent advances in vaccine research against schistosomiasis in Brazil. Acta Tropica. 2008; 108: 256-262.
6. Youklif I, Riahi S, Ibahiouin K, Sami A, EL Kamar A, EL Azhari A. Localisation intramédullaire d'une infection schistosomiale. Afr J Neurol Sci. 2008; 27:119-125.
7. Scrimgeour EM, Gajdusek DC. Involvement of the central nervous system in *Schistosoma mansoni* and *S. haematobium* infection. A review. Brain. 1985; 108: 1023-1038.
8. Cisse FA, Morel Y, Bangoura MA, Jedou A, Basse A, Ndiaye M, et al. Myélopathie à *Schistosoma mansoni*. Rev Med Interne. 2012 ; 33: 580-582.
9. Carod-Artal FJ. Neurological complications of Schistosoma infection. Trans R Soc Trop Med Hyg. 2008; 102: 107-116.

Cite this article

Boubacar S, Diagne NS, Maiga Y, Diop AM, Djibrilla BA, ert al. (2016) Diagnosis Problematic of Myelopathy Due to Schistosomiasis in the Sub-Saharan African Context and Some Area. Ann Clin Pathol 4(6): 1089.