

## Brain tumor in *Schistosoma mansoni* infection: a case report.

José R. Lambertucci<sup>1</sup>. Thiago A. A. Fidelis<sup>1</sup>; Fernanda T. Ferreira<sup>1</sup>; Helena Duani<sup>1</sup>; Geraldo B. Filho<sup>1</sup>; Eduardo P. Júnior<sup>1</sup>; Henrique V. Gama<sup>1</sup>; Ana L. Mendes<sup>1</sup>.

<sup>1</sup>Pós-graduação em Infectologia e Medicina Tropical, Departamento de clínica médica/UFMG.  
Endereço para correspondência: Depto Clínica Médica/Faculdade de Medicina/UFMG.  
Av. Alfredo Balena 190, 30130-100 Belo Horizonte, MG, Brasil.  
Phone: 55 31 3409-9820  
e-mail: [tfidelis1@gmail.com](mailto:tfidelis1@gmail.com)

**Abstract:** Central nervous system (CNS) involvement in schistosomiasis may occur during acute primary infections. However, neurological complications usually occur during chronic hepatointestinal schistosomiasis. In fact, autopsies conducted in endemic areas have identified *Schistosoma* species in up to 28% of cadavers examined (4% with *S. mansoni* infection). Pitella et al, in 1981 reported the presence of *S. mansoni* eggs in 25% of the brains examined during autopsy in Brazil who died with hepatosplenic schistosomiasis mansoni. The authors were unable to correlate the histological findings with the clinical manifestations of the deceased. Notwithstanding, a series of manifestations have been described, including epilepsy, motor neuron syndromes, intracranial hypertension and massive intracranial bleeding, leading occasionally to death. We report a case of a brain tumor due to *S. mansoni* infection, rarely described in the literature. **Case report:** A 41-year-old Brazilian man was admitted to hospital with a 5-day-history of severe headache followed by two seizure episodes. His family decided to bring him to a specialized health center in Belo Horizonte to seek proper diagnosis and treatment. Axial contrast-enhanced T1-weighted magnetic resonance imaging (MRI) showed a focal multinodular pattern in the left temporal hemisphere. Neurological examination revealed confusion, left hemiparesis and dysarthria. A biopsy fragment from the brain tumor, examined under optical microscopy (H&E 400x), revealed the presence of *Schistosoma mansoni* egg shells surrounded by proliferative granulomata, countless histiocytes, epithelioid cells, Langhans giant cells and necrotic foci. Cell infiltrate with lymphocytes, plasma cells, eosinophils, edema and areas of gliosis were also described. **Conclusions:** This case highlights two important aspects: 1) the importance of brain tumor as a clinical presentation of schistosomiasis mansoni infection; 2) The MRI pattern of brain involvement in schistosomiasis with scattered nodules around the affected area.

**Key-words:** encephalitis; neuroschistosomiasis; cerebral schistosomiasis.