

Nested polymerase chain reaction in cerebrospinal fluid for diagnosing spinal cord schistosomiasis: A promising method

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Spinal cord schistosomiasis is a neglected, disabling neurological disease commonly identified in patients from northeast Brazil. The methods currently available for its diagnosis need improvement. PCR in feces and urine is a sensitive diagnostic tool for diagnosis of schistosomiasis, but its value in the cerebrospinal fluid (CSF) is still unknown. The objective of this study was to detect *Schistosoma mansoni* DNA in CSF from patients with spinal cord schistosomiasis, using the nested PCR (NPCR) assay. This was a cross-sectional study carried out from March 2013 to January 2014 at the Aggeu Magalhães Research Center/FIOCRUZ (Pernambuco state, Brazil). NPCR was used to detect *Schistosoma mansoni* DNA in CSF samples from 20 patients with spinal cord schistosomiasis and 30 controls. NPCR was positive in 16 patients with spinal cord schistosomiasis and none from the control group (sensitivity 80%; specificity 100%, positive predictive value 100%; negative predictive value 88.2%). The NPCR technique is highly sensitive and specific for diagnosis of spinal cord schistosomiasis and can be an important diagnostic tool, particularly in cases with negative CSF serology.

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