

## Sonographic evaluation of schistosomiasis mansoni

*A avaliação ultrassonográfica da esquistossomose mansônica*

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According to data from the Brazilian Ministry of Health, schistosomiasis is a worldwide endemic disease present in 52 countries and in 19 Brazilian states. About 200 million people around the world are affected by this disease<sup>(1)</sup>. In Brazil, estimates diverge about its prevalence<sup>(2)</sup>, ranging between 2.5 and 8 million people with the disease<sup>(3)</sup>. Since 1975, with the creation of the Programa Especial de Controle da Esquistossomose (PECE) (Special Program for Schistosomiasis Management) introducing chemotherapy and sanitary measures, the number of people with this disease has decreased, according data from the Ministry of Health. Even so, the number of schistosomiasis patients is still considerably high in our country<sup>(3)</sup>.

The morbimortality associated with schistosomiasis mansoni (SM) is related to the degree of hepatic fibrosis which, on its turn, induces portal hypertension, collateral circulation and higher risks for bleeding<sup>(4-6)</sup>. Since the eighties, ultrasonography (US) has been playing a critical role in the diagnosis of abdominal alterations related to SM, determining the degree of periportal fibrosis and portal hypertension, as well as identifying their associated complications<sup>(4-7)</sup>. Most recently, studies have demonstrated that magnetic resonance imaging (MRI) can contribute to a noninvasive evaluation of such patients<sup>(1,8)</sup> and to the differentiation between SM and hepatic cirrhosis<sup>(9)</sup>, although US remains as the main diagnostic tool because of its wide availability and low cost<sup>(10)</sup>.

Despite the wide utilization of US, some limitations – among others, the one related to reproducibility –, have been attributed to the method<sup>(8)</sup>. However, most recently it was demonstrated that US presents a high agreement in the evaluation of patients with portal hypertension<sup>(11)</sup>, reinforcing its utility amongst SM patients.

For such reasons, the article written by Fernandes et al.<sup>(12)</sup>, published in the present issue of *Radiologia Brasileira* is welcome. In such a study, researchers from Universidade Federal de Sergipe (UFS) have evaluated sonographic findings in 89 patients with chronic clinical presentations of SM, from an endemic re-

gion and from the University Hospital of UFS, with the objective of establishing an association between imaging findings proposed by the World Health Organization (WHO)<sup>(13)</sup> and the disease morbidity. The authors have concluded that the sonographic protocol adopted by the WHO can detect advanced periportal fibrosis in patients with severe disease, with higher sensitivity than other methods alone such as measurement of the periportal space for example. Such findings corroborate the value of a comprehensive assessment of SM patients, including the determination of the portal fibrosis extent, presence of portal hypertension (by means of measurements of portal and splenic veins calibers and presence of collateral circulation), and sonographic organometry. On the other hand, the study has found the low sensitivity of the method for detecting periportal fibrosis in patients with hepatosplenic schistosomiasis mansoni from endemic regions and possibly resulting from milder disease presentations, maybe indicating the limited capacity of US to detect earlier stages of periportal fibrosis. Some studies have demonstrated a low intermethod agreement between US and MRI (considered as the most effective noninvasive method in the assessment of periportal fibrosis) in the evaluation of mild degrees of periportal fibrosis<sup>(14,15)</sup>, justifying the results observed by Fernandes et al.

The main objective of the programs for schistosomiasis management is to reduce the disease morbidity. For this to happen, an accurate knowledge of the stage of disease in determined group of patients is imprescindibile in such a context for preventing possible complications and allowing a prompt adoption of the most appropriate approach. Studies like the one developed by Fernandes et al. allow the confirmation the method usefulness, the recognition of some of its limitations as well as encourage the search for solutions.

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