

**Schisto012- Hepatosplenic schistosomiasis mansoni: hyaluronic acid, YKL40 and TGF- $\beta$ 1 in the diagnosis of liver fibrosis**

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**Introduction:** Serum biomarkers have been used as a tool in the diagnosis and evaluation of liver fibrosis intensity in hepatosplenic schistosomiasis with variable results. Few studies have used liver biopsy in the confirmation of Symmers' fibrosis and more frequently physicians rely upon imaging techniques as gold standard in the evaluation of liver fibrosis severity. **Objective:** Herein we evaluated the serum levels of HA, YKL-40 and TGF- $\beta$ 1 in the evaluation of liver fibrosis and its intensity using imaging techniques and surgical wedge liver biopsy. **Methodology:** Sixty patients with schistosomiasis mansoni were selected for this study: 30 had the hepatosplenic form and no evidence of active infection (group 1) and 30 had the hepatointestinal form (group 2) with viable eggs in the stools. Patients were submitted to clinical and abdominal ultrasound. A blood sample was collected for further tests. The hepatosplenic group was also submitted to serology for hepatitis B and C, upper digestive endoscopy, abdominal magnetic resonance and surgical liver wedge biopsy. The serum markers of fibrosis were measured using commercial kits. Liver fragments obtained during surgery were fixed in 10% buffered formalin and afterwards embedded in paraffin wax. Five  $\mu$ m slices were stained using Hematoxylin-Eosin and examined under light microscopy. Other fragments were stained with Picrosirius red and portal tracts were selected and quantified by software. **Results:** HA and YKL40 had no value in the diagnosis of liver fibrosis when imaging techniques were used for liver fibrosis identification. Serum levels of TGF- $\beta$ 1 were higher in the sera of patients with hepatointestinal schistosomiasis. Intensity of liver fibrosis classified by histology did not coincide with serum levels of the biomarkers evaluated in this study. There was moderate correlation between serum levels of hyaluronic acid when it was compared to histomorphometry. There was a good concordance between imaging techniques and liver biopsy in the classification of liver fibrosis intensity. **Conclusions:** HA and YKL40 were not useful as a markers of liver fibrosis in our study. TGF- $\beta$ 1 also was not a good marker of liver fibrosis but its serum levels were significantly higher in patients with hepatointestinal schistosomiasis as compared to hepatosplenic. Therefore, TGF- $\beta$ 1 may be a good marker of *S. mansoni* infection because it had high titles only in the group with active infection (viable eggs in the stools). The biomarkers used in the present study were not important in classifying schistosomiasis liver fibrosis intensity. **E-mail:** lamber@uai.com.br