Abdominal ultrasound is an important diagnostic tool in the detection of schistosomiasis. Schistosomiasis leads to significant morbidity and mortality worldwide and infection with Schistosoma mansoni and Schistosoma japonicum can lead to severe hepatic disease including periportal fibrosis, portal hypertension and esophageal varices.

World Health Organization (WHO) guidelines recommend the use of abdominal imaging to detect early hepatic changes in order to improve disease outcomes but there are limited up-to-date authoritative resources to guide the utilization of imaging in the initial management of those with schistosomiasis.

We mapped available literature regarding the role of imaging in the evaluation of patients with schistosomiasis to inform clinical recommendations for risk stratification of disease.

Methods:

Eight electronic databases were searched: Ovid Medline, EMBASE, Cochrane Library of Systematic Reviews, Epistemonikos, Global Health, NICE, TRIP and LILACS from database inception to February 28, 2019 with the following search terms:

- Schistosomiasis
- Schistosoma mansoni
- Schistosoma japonicum
- Abdominal ultrasound
- Liver fibrosis
- Hepatic
- Echogenic
- Hepatosplenic

Titles, abstracts and full-text articles were systematically screened by two reviewers with a tertiary arbitrator.

Data extraction was performed by two reviewers and the quality of the articles will be critically evaluated using the Grading of Recommendations Assessment, Development, and Evaluation (GRADE) approach. Meta-analysis was performed in comprehensive meta-analysis software using random effects model.

Results: collected from analysis of 5 articles selected for full text review by Oct 31/19

Based on the data analyzed for this systematic review to date:

The pooled prevalence for liver fibrosis detected by ultrasound was 60% in patients with schistosomiasis in Brazil.

Abdominal ultrasound can detect liver fibrosis in the absence of clinical disease.

Abdominal ultrasound is an important diagnostic tool in the diagnosis of schistosomiasis-related liver disease.

<table>
<thead>
<tr>
<th>Table 1: Summary of Data Captured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
</tbody>
</table>

Discussion:

- Abdominal ultrasound is an important diagnostic tool in the detection of schistosomiasis-related liver disease.
- WHO guidelines support that abdominal imaging can detect early hepatic changes that could indicate downstream periportal fibrosis, thereby improving outcomes.
- Synthesizing the current literature on abdominal imaging in the evaluation of schistosomiasis can translate into clinical recommendations for improved risk stratification and management of schistosomiasis, and thereby overall improvement of disease outcomes.

References:

6. A. Lucia C et al., Comparison between clinical and ultrasonographic findings in cases of periportal fibrosis in an endemic area of schistosomiasis mansoni in Brazil. Revista da Sociedade Brasileira de Medicina Tropical, 43(1): 129-134, 2010.