Schisto4. **Osteopontin production by bile ductular cells and the ductular reaction correlates with schistosomiasis fibrosis stage evaluated by ultrasound**

Pereira TA[1], Souza MM[1], Syn WK[2], Voieta I[3], Diehl AM[4], Antunes CM[5], Pereira FEL[6], Lambertucci JR[3], Andrade ZA[1]

1Centro de Pesquisa Gonçalo Moniz, Ministério da Saúde, Fundação Oswaldo Cruz, Salvador, BA, Brazil; 2The Foundation for Liver Research,The Institute of Hepatology, London, UK; 3Faculdade de Medicina, Universidade Federal de Minas Gerais, Belo Horizonte,MG, Brazil; 4Duke University Medical Center, Durham, NC, USA; 5Santa Casa de Misericórdia, Belo Horizonte, MG, Brazil; 6Núcleo de Doenças Infecciosas, Universidade Federal do Espírito Santo, Vitória, ES, Brazil;

Introduction: Osteopontin is a profibrogenic extracellular matrix protein that plays a role in fibrosing viral hepatitis, alcoholic and non-alcoholic steatohepatitis. Recently this molecule was implicated in murine schistosomiasis japonicum fibrogenesis. Our aims were to investigate if expression of liver osteopontin correlates with human schistosomiasis fibrosis stage by ultrasound. **Material and Methods:** A total of 28 wedge liver biopsies (Universidade Federal de Minas Gerais) from patients with different stages of schistosomiasis fibrosis as assessed by ultrasound (WHO protocol; pattern A=3 patients, D=5, Dc=2, Ec=17, F=1) were identified. Fragments of three donor livers that were used for split liver transplantation at Duke Hospital were included as controls. This project was approved by the Ethics Committee of UFMG and Duke University Ethical Board (204-06). Expression of liver osteopontin, keratin 7 (KRT7) and keratin 19 (KRT19) (both bile ducts markers) were evaluated by immunohistochemistry. The number of immunoreactive cells was counted in ten 200x fields per slides. Pearson's correlation analysis and Student's t test were performed using SPSS version 11.5. **Results:** Ductular reaction was present in patients with schistosomiasis, and the number of Krt7 and Krt19 positive cells increased with fibrosis stage ($r=0.784$ and $r=0.850$ respectively; $p< 0.00$). The greatest expression of osteopontin was seen in ductular cells, and liver osteopontin mirrored fibrosis stage ($r=0.856$; $p<0.00$). **Main conclusions:** Our study confirms that ductular proliferation occurs during fibrosing schistosomiasis, and expression of liver osteopontin correlates with fibrosis stage. Since osteopontin is a profibrogenic molecule, additional studies will be needed to examine if osteopontin could be a novel anti-fibrotic target. **E-mail:** dealmeida.thiago@gmail.com