

***Bsep/Abcb11* knockout ameliorates *Schistosoma mansoni* liver pathology by reducing parasite fecundity**

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Infection with *Schistosoma mansoni* is one of the worldwide leading causes of liver fibrosis and portal hypertension. Here we examined the disease outcome in mice lacking the bile salt export pump (*Bsep/Abcb11* KO mice; further referred to as “BSEP KO”). BSEP is a transporter localized on the hepatocyte canalicular membranes where it facilitates biliary excretion of bile acids. BSEP KO mice accumulate polyhydroxylated bile acids (PHBAs) that protect them from the development of cholestatic liver injury (including inflammation and fibrosis). Therefore, we infected WT and BSEP KO mice with *S. mansoni* and examined them eight weeks later. Specifically, we evaluated effects on liver histology, serum biochemistry, the gene expression profile of (pro-)inflammatory cytokines and fibrotic markers, and the hepatic collagen content. Also, the host immune response was analyzed by flow cytometry. The infected BSEP KO mice showed significantly less hepatic inflammation and tendentially less fibrosis than WT controls. Despite elevated ALT, AST, and AP levels in infected BSEP KO mice, inflammatory cells such as M2 macrophages and Mac-2/galectin-3+ cells were reduced in these animals. Accordingly, mRNA-expression levels of anti-inflammatory *Il4* and *Il13* were increased in infected BSEP KO mice. Furthermore, they exhibited decreased hepatic egg load and parasite fecundity, affecting the worm reproduction rate. These findings may, at least in part, be attributed to elevated serum bile acid levels and hence lower blood pH in infected BSEP KO mice. We conclude that the loss of BSEP and the resulting changes in bile acid composition and blood pH reduce parasite fecundity, thus attenuating the development of *S. mansoni*-induced hepatic inflammation and fibrosis.