Abstract PTU-029 Figure 1

Conclusion Using a non-invasive MRI protocol, we have measured haemodynamics in four compartments contemporaneously in cirrhosis. The detection of significant changes in early cirrhosis, suggests this technique has potential to (a) study the evolution of portal hypertension with accompanying changes in splanchnic, renal and systemic circulation as well as (b) assess the haemodynamic response to novel therapeutic agents in cirrhosis.

Competing interests None declared.

REFERENCE


PTU-030 SELECTIVE GUT DECOMTAMINATION REDUCES HEPATIC EXPRESSION OF TOLL-LIKE RECEPTOR (TLR) 4 AND DEVELOPMENT OF CIRRHOSIS BUT DOES NOT PREVENT DEVELOPMENT OF HEPATOCELLULAR CARCINOMA (HCC)
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Introduction Recent studies suggest that TLR4 inhibition may prevent fibrosis in murine models. Chronic antigenic stimulation due to increased bacterial gut translocation leads to upregulation of hepatic TLR4 and this may lead to fibrosis, cirrhosis and HCC. The aims of this study were to determine whether gut decontamination with Norfloxacin prevents cirrhosis and HCC in rodent model of cirrhosis and HCC.

Methods 18 Fisher rats divided into three groups; 1st treated with DEN and NMOR (carcinogens). 2nd was treated with the same carcinogens + Norfloxacin from the beginning to 14 weeks (end of experiment). 3rd group was control.

Results All the rats in 1st and 2nd groups developed HCC, the severity of which was not different between groups. With reticulin stain there was significantly reduced fibrosis in the group treated with Norfloxacin (score: 1 (0–2)) compared with the untreated group (score: 4 (3–5)) (p<0.03). The expression of TLR4 in both cirrhosis groups in the background liver was significantly greater than control rats but lower in the Norfloxacin group compared with the untreated group (p<0.0016). No difference in TLR4 expression was observed in the HCC nodules in both groups. There was a reduction of ALT (p<0.05) and AST (p<0.01) in the Norfloxacin treated comparing to DEN and NMOR group. There was also reduction of TNF-α level in the Norfloxacin treated group.

Conclusion The results of this study suggest that selective decontamination of the gut may be a novel strategy to prevent cirrhosis probably by inhibiting hepatic TLR4 expression. In this model of cirrhosis and HCC, reduction of hepatic TLR4 does not prevent development of HCC suggesting that the mechanisms of its development are unrelated to severity of fibrosis and TLR4 related mechanisms.

Competing interests None declared.