HCV METAVIR correlation with a novel diagnostic test, the FSI (fibroproliferative stimulation index)

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One of the main predictors of the progression of chronic hepatitis C is liver fibrosis and its assessment by liver biopsy can help determine therapy. However, biopsy is an invasive procedure with several limitations including poor reflection of extent of fibrosis in the whole liver. The fibrogenic stimulation index (FSI) measures the increase in target cell proliferation when stimulated by patient serum. The target cell in these studies was the hepatic stellate cell or the surrogate F-8 cell. The aim of this study was to investigate the use of FSI in the evaluation of liver fibrosis in patients with chronic hepatitis C using the hepatic stellate cell as the target. We prospectively enrolled 60 patients with chronic hepatitis C undergoing routine liver biopsy prior to consideration of treatment at our center. METAVIR liver fibrosis stages were assessed on biopsy specimens by a pathologist. FSI and procollagen type 3 peptide (P-III-P) were performed and correlation of FSI and P-III-P with METAVIR scores were determined. FSI and P-III-P correlated well with METAVIR fibrosis stage. There was no correlation between FSI and METAVIR activity grade of hepatic inflammation. Our research indicates another the FSI is an excellent tool to predict fibrosis; correlates with P-III-P in experimental models (TNBS) and we now report is a positive predictor of fibrosis in specific forms of fibrosis including HCV related hepatic fibrosis. In conclusion, non-invasive assessment of FSI appears as a reliable tool to detect significant fibrosis or cirrhosis in patients with chronic hepatitis C. (supported by CIHR).

Biography

Dr. Theresa C. Hemsworth-Peterson completed her Ph.D and conducted postdoctoral studies at National Institutes of Health, in the National Institute of Child Health and Human development in the Developmental Pharmacology lab. She is an Affiliate Scientist at the QEII in Halifax and a Professor of Medicine in the GI Division at Dalhouse University in Halifax, Canada. She is past Chair of the Dalhousie Medical Research Foundation SAC and holds several US patents and has published extensively in reputed journals and serves on their editorial boards and in Nov. 2011, was nominated for a Canadian Progress Women of Excellence Award in Research.