

Hepatology Highlights

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Clinical outcomes of liver transplantation for polycystic liver disease A single center experience

Chandok N, et al. The polycystic liver disease is a rare and benign disorder (incidence of 0.01%) that is usually asymptomatic, although sometimes it can present symptoms like abdominal pain, early satiety, nausea and vomiting, all of them related to the size of the liver¹ and it tends to present along kidney polycystic disease. Even though there are some palliative techniques to ameliorate the symptoms, like fenestration of the cyst, the curative treatment is the transplantation.²

In this issue of the Annals of Hepatology, the group of Chandok N and colleagues reported the results of their cross-sectional study that took place in Ontario, Canada, that evaluated the outcomes of patients that underwent liver transplantation due to polycystic liver disease. They collected a total of 14 patients between 1993 and 2010 and found that they presented a high rate of vascular complications like hepatic artery thrombosis (3 patients that relates to 20%) or stenosis (2 patients, 13.3%), but 13 of them were also alive and with satisfactory graft function after a 66.8 months follow-up. It is some-

how alarming the fact that postsurgical vascular complications rate is high within these patients, which brings to our attention this to consideration in the follow-up. However it has been suggested that patients with polycystic liver disease, orthotopic liver transplantation is technically difficult. The size of the liver, previous invasive procedures, and displacement of vascular and biliary structures and neighboring organs increase the technical difficulty, as well as blood loss and associated morbidity.³ Fortunately, the long-term patient and graft survival and kidney function were excellent.

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Comparison of Acoustic Radiation Force Impulse Imaging (ARFI) to Liver Biopsy Histologic Scores in the Evaluation of Chronic Liver Disease: A Pilot Study

Mazhar H, et al. Liver chronic diseases are increasing worldwide and the efficacy of diagnosis is nowadays demanding. Liver fibrosis represents the wound healing response to the chronic injury caused by viral hepatitis, excessive alcohol con-

sumption, nonalcoholic steatohepatitis, hemochromatosis or immune-mediated injury and cirrhosis may be developed if the fibrosis progresses.¹ The gold standard for the staging of liver diseases is the biopsy. Nevertheless the invasive nature of it makes this method a restrictive one, most of them because of the patients fear to the procedure or the physicians fear to the complications² not only that, the small sample contained in a punch biopsy and the quality of it (ie. small number of portal triads)

may not accurately reflect the morphological changes that have developed in the whole organ. Recent studies have been taken place in order to find newer non-invasive techniques that can confidently diagnose fibrosis. In this issue of the journal, Mazhar H and colleagues present their prospective blind pilot comparison study that evaluated the correlation between a new non-invasive method for the assessment of liver fibrosis, the acoustic radiation force impulse imaging (ARFI), with the biopsy. After evaluating 21 patients with a chronic liver disease through ARFI and biopsy, they found that for predicting severe fibrosis and cirrhosis, ARFI accuracy was maximal compared to earlier stages. In a previous study, Lupsor, *et al.*,³ prospectively compared in 112 patients with chronic hepatitis C, ARFI with TE (FibroScan®, Echosens, Paris, France), taking liver biopsy as the reference standard. Those investigators found that diagnostic accuracy of ARFI is similar to that of TE for severe fibrosis and cirrhosis (with AUROCs of 0.87 *vs.* 0.93 and 0.91 *vs.* 0.94, respectively. These results suggest that ARFI and TE appears to be excellent tools for early detection of cirrhosis and complications of cirrhosis.

ARFI imaging is incorporated into a conventional ultrasound (US) machine (Acuson 2000®, Virtual Touch Quantification mode, Siemens Medical Solutions, Mountain View, Ca, USA) and involves the mechanical excitation of tissue using short duration ($\approx 262 \mu\text{sec}$) acoustic pulses producing shear waves propagation generating localized micron-scale displacements in the tissue.⁴

Currently we have some non-invasive methods such as transient elastography (FibroScan), Fibro-Test, and aspartate-to-platelet ratio (a free non-patented score) those are the most widely used and validated non-invasive methods for assessment of liver fibrosis⁵ and now we have ARFI. Although Mazhar H et al studied a small group of patients. Their results are stimulating to validate ARFI in a large group of patients with liver fibrosis and in other chronic liver diseases. Finally, with the introduction of more and more effective non-invasive methods to evaluate the chronic liver diseases we will be able to perform longitudinal studies to look the disease regression and clinical outcomes.

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