**2017**

**The role of quantitative endoscopic ultrasound elastography in the differential diagnosis of pancreatic solid tumors - initial experience of a gastroenterology department**

Helena Ribeiro, Cátia Leitão, Richard Azevedo, João Pinto, José Tristan, Rui Sousa, Eduardo Pereira, Ana Caldeira, António Banhudo; Gastroenterology Department of Amato Lusitano Hospital, Castelo Branco, Portugal

Introduction: Quantitative second generation endoscopic ultrasound (EUS) elastography allows the quantitative analysis of tissue stiffness. EUS elastrography has been studied in the differential diagnosis of solid tumors of the pancreas and seems to be a useful auxiliary diagnostic tool. Aims and Methods: The aim of this study was to evaluate the accuracy of the quantitative EUS elastography in the differential diagnosis of pancreatic solid masses, discriminating malignant from benign masses, using strain ratio (SR) analysis. A preliminary study was conducted for 9 months and included 20 consecutive patients who underwent EUS for the evaluation of solid pancreatic masses. EUS elastography was performed by 2 operators, using a linear echoendoscope (Pentax® EG3870UTK) attached to Hitachi® HI VISION Preirus platform. The mean of 3 measures was considered as the SR final result for each lesion. EUS–fine-needle aspiration of the lesions was performed after SR assessment and the final diagnosis was based on the cytology or histology results. Accuracy of the elastography was obtained by the analysis of ROC curves. Results: Included 20 patients with solid pancreatic tumors with conclusive histological / cytologic diagnosis (4 inflammatory masses, 14 adenocarcinomas and 2 neuroendocrine tumors). The mean SR value was significantly higher in the malignant tumors comparing with the benign tumors (37,70 vs 11,31; p <0,001). The sensitivity and specificity of SR for detection of pancreatic malignancy for a cut of 15.89 were, respectively, 93.7% and 100% (area under the curve of 0.98, 95% CI). The overall accuracy of the EUS elastography using the SR for the detection of pancreatic malignancy was 95%. Conclusion: Despite the small sample, this preliminary study suggests that quantitative EUS elastography is promising in the diagnostic approach of solid pancreatic lesions, showing good accuracy in the differentiation between malignant and inflammatory masses. It may complement the study and characterization of the tumors, aiding in the diagnostic and follow-up of this patients.

Fermer la fenêtre