

Contrast-enhanced harmonic endoscopic ultrasound in the diagnosis of primary pancreatic B-cell non-Hodgkin's lymphoma

Hui Jer Hwang, Carlos Robles-Jara, Monserrate Largacha, Carlos Robles-Medranda

Department of Endoscopy, Instituto Ecuatoriano de Enfermedades Digestivas, University Hospital Omni, Guayaquil, Ecuador

A 71-year-old male with a history of non-Hodgkin's lymphoma 26 years ago and considered in remission was presented with abdominal pain and bloating of 4 months duration, jaundice and weight loss of 15 pounds in the last 2 months. His total serum bilirubin was 24 mg/dL (direct bilirubin: 21 mg/dL), associated to elevated transaminases 3 times over the upper limit of normal value. Other laboratory data were normal. Contrast-enhanced computerized tomography scan showed a mass in the head of the pancreas with gastric and duodenal infiltration, abdominal lymphadenopathy, bile and pancreatic duct dilated and ascites. Endoscopic ultrasonography (EUS) showed a 60 mm hypoechoic mass in the head of the pancreas with common bile duct and portal vein infiltration. EUS also found lymphadenopathy, ascites, with dilation of the main pancreatic duct and common biliary duct. Initially, EUS-fine needle aspiration (EUS-FNA) was not conclusive in spite that quantitative and qualitative elastography were suspected for malignancy (mean strain ratio: 37). We performed a new EUS using contrast-enhanced harmonic EUS (CH-EUS, pentax-hitachi) with sonovue (2.4 mL) that showed a hypoenhanced pattern of the pancreatic mass. EUS-FNA with a 19-gage needle

(expect needle, boston scientific) obtained sample of the pancreatic mass for histology and a diffuse large B-cell immunophenotype non-Hodgkin's lymphoma was diagnosed [Figures 1-3].

Primary pancreatic lymphoma (PPL) is a rare tumor of the pancreas. Although it is a rare malignant tumor, the correct diagnosis is essential since their therapeutic management differs from other pancreatic tumors. In a retrospective study, it was encountered in 0.5% of patients with solid pancreatic masses, usually located in the head and appeared as a heterogeneous mass.^[1] Endoscopic ultrasonography is the best modality for pancreatic lesion evaluation, although differentiating malignant lesions (adenocarcinoma, neuroendocrine tumor,

Access this article online	
Quick Response Code: 	Website: www.eusjournal.com
	DOI: 10.4103/2303-9027.156762

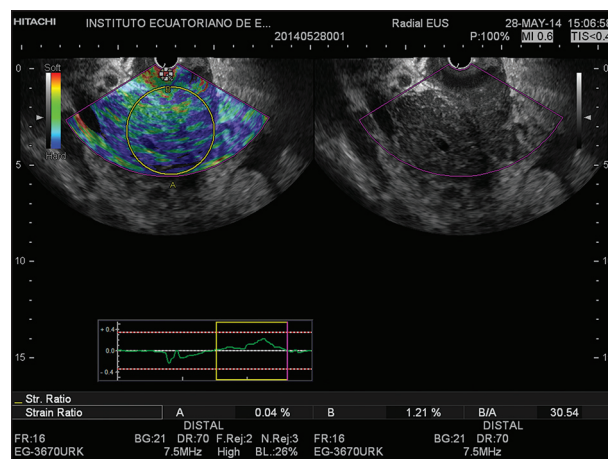


Figure 1. Endoscopic ultrasonography elastography showing the heterogeneous mass in the head of the pancreas (Strain Ratio: 30)

Address for correspondence

Dr. Carlos Robles-Medranda, Department of Endoscopy, Instituto Ecuatoriano de Enfermedades Digestivas, University Hospital Omni, Guayaquil, Ecuador. E-mail: carlosoakm@yahoo.es

Received: 2014-10-11; Accepted: 2014-10-29

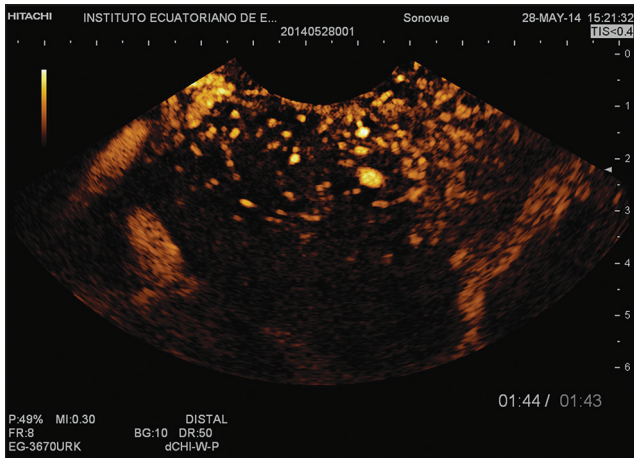


Figure 2. Contrast-enhanced harmonic-endoscopic ultrasonography with a linear array ultrasound endoscope shows a hypoechoic mass after contrast sonovue (Bracco) injection

primary lymphoma, metastases) remains a challenge. EUS-FNA is currently the preferred technique for the diagnosis of neoplasms of the pancreas.^[2] Recently, CH-EUS has been reported as an adjunct in the diagnosis of pancreatic neoplasms.^[3] However, the usefulness of CH-EUS in the PPL has been poorly studied because of the rarity of this entity. In a recent study, a case with metastatic pancreatic lymphoma CH-EUS appeared hyperenhancing.^[4] We present a case of PPL in which CH-EUS showed as an hypoechoic pattern.

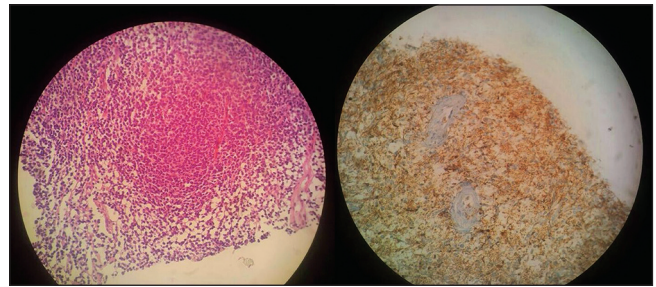


Figure 3. Histology showing a diffuse large B-cell immunophenotype non-Hodgkin's lymphoma

REFERENCES

1. Ramesh J, Hebert-Magee S, Kim H, *et al.* Frequency of occurrence and characteristics of primary pancreatic lymphoma during endoscopic ultrasound guided fine needle aspiration: A retrospective study. *Dig Liver Dis* 2014;46:470-3.
2. Gimeno-García AZ, Alonso MM, García Castro C, *et al.* Primary pancreatic lymphoma diagnosed by endoscopic ultrasound-guided fine needle aspiration biopsy. *Gastroenterol Hepatol* 2010;33:638-42.
3. Kwek BE, Ang TL, Seo DW, *et al.* Contrast-enhanced harmonic endoscopic ultrasonography of solid pancreatic lesions. *Endosc Ultrasound* 2013;2:142-7.
4. Fusaroli P, D'Ercole MC, De Giorgio R, *et al.* Contrast harmonic endoscopic ultrasonography in the characterization of pancreatic metastases (with video). *Pancreas* 2014;43:584-7.

How to cite this article: Hwang HJ, Robles-Jara C, Largacha M, Robles-Medrand C. Contrast-enhanced harmonic endoscopic ultrasound in the diagnosis of primary pancreatic B-cell non-Hodgkin's lymphoma. *Endosc Ultrasound* 2015;4:160-1.

Source of Support: Nil. **Conflict of Interest:** None declared.