



Contrast enhanced low mechanical index endoscopic ultrasound (CELMI-EUS).

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Introduction:

Contrast enhanced low mechanical imaging endoscopic ultrasound (CELMI-EUS) is a new high resolution real-time imaging technique with which was recently first described by our group [Z Gastroenterol 2005; 43:1219-1223].

Summary:

We report on the routine use applying 2nd generation CELMI-EUS in the diagnosis and differential diagnosis of hepatobiliary and pancreatic disease. CELMI-EUS was performed using Hitachi 900 HV combined with an electronic echo-endoscope HITACHI/Pentax EG3870UTK (HITACHI, Tokyo, Japan) and adapted dynamic contrast harmonic wideband pulsed inversion software with low mechanical index (MI, 0.09 – 0.30) before and up to 180 seconds after injection of SonoVue[®] (Bracco, Milan, Italy) 4.8 ml. Enhancement of the liver parenchyma and bilio-pancreatic microvessels persisted up to 5 minutes under continuous scanning conditions. No significant bubble destruction could be visualized.

Conclusion:

The method was most useful in the detection and characterisation of liver tumours and differential diagnosis of pancreatic lesions [Clin Gastroenterol Hepatol 2008; 6(5):590-597].