

The efficacy of endoscopic transpapillary intraductal ultrasonography in the differential

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Background:

IgG4-related sclerosing cholangitis (IgG4-SC) causes various type of biliary stricture.

It is important to differentiate IgG4-SC from primary sclerosing cholangitis (PSC) or cholangiocarcinoma (CC) because therapeutic strategy is different. We aimed to clarify the efficacy of endoscopic transpapillary intraductal ultrasonography (IDUS) in the differential diagnosis of IgG4-SC.

Patients & Methods:

Patients: between 2004 and 2016 at our hospital and the affiliated hospitals. IgG4-SC: (n=92; 76 men and 16 women), PSC: (n=42; 25 men and 17 women) CC: (n=66; 47 men and 19 women) IgG4-SC was diagnosed based on Japanese clinical diagnostic criteria of IgG4-SC 2012. PSC was diagnosed based on Japanese 2016 diagnostic criteria of PSC. Methods We studied IDUS findings between IgG4-SC, PSC and CC. 1) IDUS findings at stricture site (IgG4-SC vs PSC): Origin (wall thickness, extrinsic compression), Symmetry (circular-symmetric, circular-asymmetric), Inner margin (smooth, irregular), Outer margin (clear, unclear), Internal echo (homogeneous, heterogeneous), Internal foci (present, absent), Diverticulum-like outpouching (present, absent), Three layers structure (preservation, disappear), The bile duct wall thickness 2) Diverticulum-like outpouching on ERC and IDUS (PSC) 3) Wall thickness at non-stricture site (IgG4-SC vs CC) 4) Symmetry and three layers preservation at non-stricture site (CC)

Results:

1) Symmetric wall thickness, smooth inner margin, clear outer margin and preserved three layers are significantly more frequently observed for IgG4-SC (p

Conclusions:

IDUS is useful in the differential diagnosis between IgG4SC, PSC and CC.