

Imaging diagnosis

Case 424

2. Multi-cystic biliary hamartoma

【Progress】

He came back to a local clinic with a letter saying imaging diagnosis of probable multi-cystic biliary hamartoma. It implies a benign disease. He was advised to be under watchful periodic follow-up using ultrasound at a local clinic.

【Discussion】

Cystic lesions of the liver are commonly encountered at the time of everyday image interpretations. Their lists are liver cyst, complicated cyst, biliary hamartoma, multi-cystic biliary hamartoma, Caroli's disease, mucinous cystadenoma or cystadenocarcinoma, and intraductal papillary neoplasm of the biliary tracts. Of these, Caroli's disease and intraductal papillary neoplasm of the bile ducts communicate with biliary tract, indicative of associated with dilatation of biliary trees, while cysts, complicated cysts, biliary hamartoma, multi-cystic biliary hamartoma do not.

Liver cysts include clear fluids, complicated cysts include mucin, protein-rich, or bloody fluids. Biliary cysts are present along with biliary tract. Biliary hamartoma with small cysts often occupies a whole liver, in unnumerable numbers. Caroli's disease is congenital and depicted as cystic lesions with marked biliary tract dilatation. Mucinous cyst adenoma or adenocarcinoma emerge in females and originates associated with ovarian cyst adenoma or adenocarcinoma. Intraductal papillary neoplasm of the biliary tracts arises from biliary tract and secrete mucinous or non-mucinous fluids to biliary tracts inducing dilatation of local intrahepatic biliary tracts. Of these, mucinous cystadenoma or adenocarcinoma mimic the figure of multi-cystic biliary hamartoma and further, both do not communicate with biliary tracts.

Multi-cystic hamartoma that is first reported in 2006, is a rare benign lesion (1), solitary or multiple (2-7). Although multi-cystic hamartoma is rare, only less than 30 cases in English literatures, the existence of multi-cystic hamartoma is relatively known probably because of specific imaging figures (2-7). In fact, our part-time radiologist made a diagnosis for this case as multi-cystic biliary hamartoma which was shown in the radiologic imaging casebook he owned. Typical images based on macroscopic findings are depicted as a cyst with septum like multi-cystic or honey-comb configurations (2-7). Histological findings revealed cysts have the same structure of biliary tracts, namely round- dilated biliary duct with cylindrical epithelium at surface and smooth muscles and small capillaries in the mural. Septum and cystic margin are visualized on contrast-enhanced CT (2-7).

In our case, he had no specific symptoms or signs. The medical care-check using ultrasound indicated the existence of liver space occupying lesion. Contrast-enhanced CT uncovered the enhanced septum in the cystic lesion, mimicking multi-cystic or honey-comb pattern, revealing the existence of multi-cystic biliary hamartoma.

【Summary】

We presented a fifty-three-year-old male presented with a letter, saying that health care check using ultrasound revealed space occupying lesion at liver S6. A cyst with septum enhanced in portal phase and capillary phase is depicted on EOBMRI, compatible with multi-cystic biliary hamartoma. It is borne in mind that the image of multi-cystic biliary hamartoma is characteristic of possessing cystic septum and cyst mural that are enhanced using contrast medium because they have capillary and smooth muscle layer in the mural.

【References】

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