MRI CHARACTERISTICS OF PRIMARY BILIARY TRACT MALIGNANCIES AND ITS MIMICS

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Purpose:
- To demonstrate MRI characteristics of primary biliary tract malignancies.
- To evaluate the accuracy of magnetic resonance imaging (MRI) with and without contrast agent (Gadobenate Dimeglumine) and magnetic cholangiopancreatography (MRCP) techniques to identify primary biliary malignancies and assess extent of involvement.
- To educate participants regarding a variety of lesions which mimic primary malignant biliary tumors and optimal management of such lesions.

Methods:
Patients undergoing MR examination for diagnostic workup of focal hepatic lesions causing intrahepatic or extrahepatic bile duct obstructions were included in this presentation. Dedicated abdominal MRI tumor protocol with MRCP with and without Gadobenate Dimeglumine was performed. The imaging findings were evaluated and correlation with post operative histopathological findings was performed.

Discussion: Cholangiocarcinoma (CCA) constitutes the majority of primary malignant bile duct tumors involving the liver usually affecting populations in the 6th and 7th decade. Other rare malignant tumors of biliary tract include melanoma and lymphoma. Diverse intrahepatic lesion having findings resembling cholangiocarcinoma in our presentation includes hepatocellular carcinoma, metastases, primary sclerosing cholangitis, inflammatory pseudotumor, IgG4 cholangiopathy and Mirizzi’s syndrome. Although the diagnostic advantages of CT scanning are well documented, there are a number of cases where CT diagnosis is indeterminate and MRI provides significant additional information that can affect the accuracy of diagnosis, preoperative intervention, treatment and followup. MRI aids in lesion detection and characterization by providing information regarding tumor size as well as investigating all involved structures such as bile ducts, vessels and hepatic parenchyma as well as detecting nodal or distant metastases thus assisting regarding decisions for tumor resectability.

Conclusion: MRI with MRCP is an invaluable tool in diagnosis of primary biliary tract tumors affecting bile ducts and differentiating neoplastic from non-neoplastic pathologies. MRI aids in identifying several entities which mimic primary biliary tract tumors and thereby assists clinicians in the detection and management of such pathologies.

References:

Klatskin tumor

Mirizzi’s syndrome

IgG4 cholangiopathy