AB006. S1-5. What is the best approach for biopsy and stenting hilar cholangiocarcinoma?

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Abstract: Hilar cholangiocarcinoma frequently presents with complex biliary obstruction and poses significant challenges with regards to diagnosis and management. Several routes may be used for tissue acquisition to establish the diagnosis. Endoscopic retrograde cholangiopancreatography (ERCP) with transpapillary brush cytology and forceps biopsy are the first-line modality for tissue acquisition, but with only modest sensitivity. Cholangioscopy-guided forceps biopsy provides higher sensitivity. Endoscopic ultrasound-guided fine needle aspiration/biopsy (EUS-FNAB) is an alternative modality when the diagnosis is indeterminate with ERCP-based approaches. In the presence of a mass, biopsy can also be performed under sonography or computed tomography (CT)/magnetic resonance imaging (MRI) guidance, but this approach carries a risk of tumor seeding along the biopsy tract. Routine preoperative drainage is not advocated for patients with resectable tumors. For patients with unresectable tumors, adequate biliary drainage improves quality of life/survival and thus is the cornerstone of palliative care. For Bismuth type I and II cancers, ERCP is the preferred route for drainage and stenting. The optimal route of drainage is controversial in Bismuth type III and IV cancers, and the choice between percutaneous and endoscopic drainage depends on the anatomy and condition of the patient and local expertise. A meta-analysis showed that adverse event rate and patient survival were comparable between percutaneous biliary drainage (PTBD) and ERCP, but the rate of successful drainage was higher with PTBD. Because of the high-grade biliary obstruction associated with Bismuth type III and IV cancers, endoscopic drainage via ERCP carries a risk of incomplete drainage and subsequent cholangitis, and thus should be performed only in centers with such expertise. EUS-guided biliary drainage (EUS-BD) with creation of a hepaticogastrostomy is another alternative in experienced hands. With regards to stent selection, uncovered self-expandable metal stent (SEMS) is preferred over covered SEMS or plastic stent. Drainage of at least 50% of the liver volume has been shown to improve survival, and bilateral placement of SEMS seems to be more effective than unilateral drainage in terms of stent patency and lower re-intervention rates. Lastly, ERCP-directed therapies including endobiliary brachytherapy, photodynamic therapy (PDT), and radiofrequency ablation (RFA) might also provide palliation by local tumor control and serve as an adjunct to stenting.

Keywords: Cholangiocarcinoma; endoscopic retrograde cholangiopancreatography (ERCP); endoscopic ultrasound (EUS); self-expandable metal stent (SEMS)

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