Can EUS-guided FNA distinguish between gallbladder cancer and xanthogranulomatous cholecystitis?

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Abstract:

Background EUS-guided FNA (EUS-FNA) is a useful modality for sampling various targets, but its applicability to gallbladder (GB) mass lesions is limited. Objective To determine the usefulness of EUS-FNA for diagnosing GB mass lesions. Design Single-center, retrospective, case-series study. Setting Tertiary-care referral center. Patients This study involved 15 consecutive patients who underwent EUS-FNA of GB mass lesions. We punctured GB masses in patients with suspected xanthogranulomatous cholecystitis to distinguish them from malignancy, and in patients with unresectable GB carcinoma for pathological confirmation. The final diagnosis was based on surgical histopathological results or follow-up outcome. Interventions EUS-FNA. Main Outcome Measurements Evaluation of EUS-FNA sampling adequacy rate and diagnostic yield. Results Xanthogranulomatous cholecystitis was suspected in 6 of the 15 patients. EUS-FNA revealed foam cells (n = 3), inflammatory cells (n = 1, proven by cholecystectomy), and GB carcinoma (n = 1), and the amount of the aspirate was insufficient in one case (xanthogranulomatous cholecystitis was later proven by extended hepatectomy). The mean follow-up period of the patients with xanthogranulomatous cholecystitis was 1177 days. Adenocarcinoma was confirmed by EUS-FNA in 8 of the 9 patients with suspected unresectable GB carcinoma, and the FNA was inconclusive in one. All 10 patients with GB carcinoma underwent chemotherapy. The overall sampling adequacy was 86.6%. The accuracy of EUS-FNA for detecting malignancy and for the final diagnosis was 93.3% (95% CI, 62.4%-99.9%) and 80% (95% CI, 54%-93.7%), respectively. Limitations A small patient cohort and a retrospective design with potential selection bias. Conclusions Malignant GB mass lesions can be safely and accurately differentiated by EUS-FNA. Thus, patients with xanthogranulomatous cholecystitis can avoid undue extensive surgery.

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