EUS-FNA versus Biliary Brushings and Assessment of Simultaneous Performance in Jaundiced Patients with Suspected Malignant Obstruction

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ABSTRACT

Background and study aims Individuals with suspected malignant biliary obstruction commonly undergo ERCP for drainage and tissue sampling via biliary brushings. EUS with EUS-FNA facilitates staging and potentially more accurate tissue sampling. The aim is to compare the diagnostic performance of EUS-FNA and ERCP with biliary brushings (ERCP-BB) in the diagnosis of pancreatobiliary carcinoma and the utility of combining the two procedures under conscious sedation. Patients and methods Retrospective analysis of a prospectively maintained database; 37 patients with suspected malignant obstructive jaundice underwent 39 paired procedures, either combined (n=22) or within a few days (n=17). Results Using strict cytological criteria the sensitivity of EUS-FNA in the diagnosis of malignancy was 53% (95% CI, 36.2-69.7%) versus 29% for ERCP-BB (95% CI, 14-45%). Combining the two tests improved sensitivity to 65% (95% CI, 48.6-80.8%) which was significantly better than ERCP-BB alone (P=0.005) but not EUS-FNA alone. When both procedures were performed under the same conscious sedation, there was a significant difference (P=0.031) between the sensitivity of EUS-FNA 53% (95% CI, 30.2-75.1%) and that of ERCP-BB 21% (95% CI, 2.7-39.4%). When both procedures were performed together the mean (SD) in-room time was 79±14 minutes (range 45-105 minutes). Two of the patients (9.1%) had a complication. Conclusions In patients undergoing EUS-FNA and ERCP-BB under the same sedation, EUS-FNA was significantly more sensitive in diagnosing malignancy. Combining the results of both tests improved diagnostic accuracy. Combining therapeutic ERCP and EUS-FNA under the same conscious sedation is feasible, with a complication rate similar to that of ERCP alone.