COMPARING THE DIAGNOSTIC YIELD AND SAFETY OF ENDOSONOGRAPHY GUIDED USE OF SHARK-CORE AND PRO-CORE NEEDLES

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Background Endoscopic ultrasound (EUS) guided fine needle aspiration and biopsy (EUS-FNA/FNB) is the standard technique for diagnosis and evaluation of pancreatic lesions. Core biopsy specimens provide accurate diagnoses. ProCore needle (Wilson-Cook Medical Inc. NC, USA) and Shark-Core needle (Covidien, Ireland) were designed to obtain histological and cytological samples. Each claim superiority over other for better diagnostic acquisition and safety. There is limited head to head comparison data available in literature about different needles.

Aim The aim of our study was to compare the diagnostic yield and safety of 22G FNB needles for sampling of pancreatic lesions.

Methods We prospectively randomised patients with pancreatic lesions either to Shark-Core or to Pro-Core needle sampling. Data collection included demographics, needle type, number of passes.

Results A total of 143 patients having 151 pancreatic lesions were analysed. 74 lesions were biopsied in Shark-Core group from 69 patients. Four patients had their procedure repeated. Mean age was 62.4 years and 51% were males. Mean number of needle passes were four. 33 samples had malignancy and 26 had other diagnoses and 10 had insufficient tissue. The diagnostic yield was 86.3%. 2 patients developed mild pancreatitis and one required admission with epigastric pain and vomiting.

Pro-Core group had 77 lesions biopsied from 74 patients. 3 had two procedures each and one patient had both Shark core and Procore sampling. Mean age was 63 with males 50.8%. Median passes were four. 37 had malignancy and 23 had other diagnoses. Inadequate tissue sample was obtained in 13. The overall diagnostic yield was 63/77 (81.81%). 3 patients had epigastric pain and vomiting and needed admission.

Discussion Though Shark-Core needle demonstrated better diagnostic yield and had marginally more complications, both of which were not statistically different from Pro-Core needle. In our experience, the time required for tissue acquisition is in favor of Shark-Core needle as it allows inner needle to be withdrawn than the whole system, maintaining the scope position unlike Pro-Core system that requires the whole biopsy needle system to be withdrawn from the scope.

With many more core sampling needles now commercially available, further studies may be required to evaluate other types of needles for tissues yield, safety as well as time required to acquire samples.

CAN PROTOCOLISED MEASUREMENTS WITH BARIUM RADIOLOGY PREDICT SEVERITY AND TREATMENT OUTCOMES IN ZENKER’S DIVERTICULUM?

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Introduction Barium swallow is an established investigation for Zenker’s diverticulum (ZD), yet, no agreed measurement protocol exists for the evaluation of ZD on Barium radiology. We developed a standardised protocol to measure ZD dimensions on Barium radiology, and aimed to correlate ZD dimensions with symptoms, procedural difficulty and treatment outcomes.