

中文題目：內視鏡超音波引導下細針穿刺切片與經皮超音波引導下細針細胞穿刺在胰腺腫塊診斷中的比較

英文題目：Endoscopic Ultrasound-Guided Fine Needle Biopsy versus Percutaneous Ultrasound-Guided Fine Needle Aspiration in Diagnosis of Solid Pancreatic tumor

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Background: Pancreatic cancer is a well-known cause of morbidity and mortality world-wide. Pancreatic cancer has one of the lowest at 5-year survival rates of all cancers. Therefore, early and precise diagnosis is very important for improving the results of surgery. The available literature comparing fine needle aspiration(FNA) and fine needle biopsy (FNB) needles has not provided definitive results. A recent meta-analysis found no significant difference between one biopsy needle and standard FNA needles with regard to sample adequacy, diagnostic accuracy, or acquisition of a core specimen; however, the FNB needle established a diagnosis with fewer passes. Our purpose of this study is to compare between the diagnostic accuracy of endoscopic ultrasound-guided (EUS)-FNB and percutaneous ultrasound-guided (US)-FNA in diagnosis of pancreatic solid tumor.

Methods: 358 cases of US-FNA or EUS-FNB for solid pancreatic mass between January 2011 and September 2022 in a single-centre university hospital were retrospectively reviewed, and we excluded non-pancreas lesions, cystic formation, and undetermined final diagnosis (n = 49). US-FNA: Chiba needles, 22G were done under complete sonographic guidance with a biopsy attachment. EUS-FNB: EUS was performed by Olympus EU-ME2 Premier. 19 G Echotip needles (Boston Scientific Acquire™ EUS-FNB 19G Flexible Needle design) were administered. A final diagnosis was based on definitive cytopathology, and surgical pathology. Specimens that contained inadequate material were not excluded from the primary analysis and were considered false negatives.

Results: A total of 309 patients (US-FNA, n = 162; EUS-FNB, n = 147) with solid pancreatic mass detected by cross-sectional imaging of computed tomography. Age, sex, mass location, were not significantly different between the two groups. There are similar percentage of benign and neoplasm between FNA and FNB(14.2%/85.8% vs. 8.8%/91.2%, P = 0.143). The sensitivity was higher in EUS-FNB (91.97%, [95% CI: 86.1%-95.9%]) than in US-FNA (79.47%, [95% CI: 72.1%-85.6%]), P = 0.0019. However, the US-FNA had higher specificity and accuracy than EUS FNB (100%, [95% CI:71.5%-100%] vs. 90%, [95% CI: 55.5%-99.8%], P<0.0001). As for solid neoplasm tumor ≥ 3cm, the sensitivity of FNA was not inferior to FNB(86.1% vs. 93.4%, P = 0.095). The adverse event rate was not significantly different between two groups.

Conclusions: For solid pancreas tumor, the sensitivity was higher in EUS-FNB than in US-FNA in daignosis. For solid neoplasm tumor ≥ 3 cm, the sensitivity of US-FNA was not inferior to EUS-FNB.

Keywords : Endoscopic ultrasound guidance, percutaneous ultrasound guidance, pancreatic tumors, accuracy.