Endoscopic ultrasound-guided tissue acquisition of pancreatic masses with core biopsy needles using wet suction technique

Dear Editor,

We read with great interest the recent review by Villa *et al.* entitled, "Endoscopic ultrasound-guided fine needle aspiration: The wet suction technique"[1] about a novel sampling method for endoscopic ultrasound-guided fine-needle aspiration (EUS-FNA) of pancreatic solid lesions. In brief, this technique includes removing the stylet and flushing the needle with saline to replace the column of air with water, and then the needle is passed into the lesion and the suction applied with a 10cc prevacuum syringe[2] or with a 10cc syringe prefilled with 3 mL of normal saline.[3]

The rationale of this technique is that being water a less compressible fluid when compared to air, a greater suction ability could be obtained when the needle is filled with a continuous column of water.[4] Preliminary data showed significantly higher cellularity and better diagnostic yield with wet suction technique (WST) when compared to the traditional "dry" technique (air-filled), with no significant difference in the amount of hemorrhage.[2,3]

All the published studies have been performed using the standard needles; therefore, we performed a randomized trial with the aim of evaluating diagnostic yield and accuracy of EUS-guided tissue acquisition of pancreatic masses with core biopsy needles comparing the WST with the slow-pull technique (SPT).[5] Eighteen consecutive patients with pancreatic mass were enrolled. Each lesion was sampled 4 times with a 22-gauge ProCore needle (Cook Endoscopy Inc., Limerick, Ireland), with both WST and SPT and randomization of technique sequence. The overall diagnostic accuracy with combined histological and cytological analysis was 100% for WST and 94.4% for SPT, without significant difference. WST provided a visible tissue core in 14 cases compared to 12 cases obtained with SP (P = NS). Histological diagnosis was possible in 13 samples with WST compared to 12 cases with SPT (P = NS). Blood contamination was superior in WS group, but the difference was again not statistically significant. In one patient, histological sample obtained by WST induced a change in the diagnosis from adenocarcinoma (on cytological evaluation) to well-differentiated neuroendocrine tumor. No complications were recorded in both groups.

Based on the current evidence, there are still conflicting data as concerns the usefulness of the WST. Indeed, our data did not show any significant difference between the two techniques. A large randomized controlled trial comparing the WST with SPT is actually ongoing to understand whether this novel technique may have a role in the diagnosis of pancreatic mass lesions.

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Conflicts of interest
There are no conflicts of interest.

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