

Routine EUS-guided tissue acquisition in patients with resectable solid pancreatic masses – Pros and cons reassessment in 2020

Dear Editor,

We have read with great interest Dr. Larghi *et al.*'s manuscript, in which the authors brilliantly summarize the preoperative management of resectable solid pancreatic masses (SPMs).^[1] The authors emphasized the role of EUS-guided tissue acquisition (EUS-TA), based on several recent advances in the field of surgery, oncology, molecular biology, and gastrointestinal endoscopy. However, to date, the clinical practice has not substantially changed accordingly. As shown in Table 1, oncological and endoscopic guidelines do not reach any agreement on the recommendations regarding the role of EUS-TA for resectable SPMs before surgery.

Recently, interesting results have been achieved by neoadjuvant chemotherapy trials.^[2] Therefore,

international guidelines agree on considering the option of preoperative chemotherapy even in patients with resectable pancreatic ductal adenocarcinoma (PDAC), even if resectable [Table 1].

However, if a pathological diagnosis is mandatory before starting any chemotherapy treatment, we need to discuss whether giving indication for the resection of SPMs without a pathological diagnosis could be considered the best strategy. In fact, upfront surgery with no pathological confirmation may lead to a not negligible risk (5%–13%) of only benign disease on surgical specimen.^[1] Moreover, immediate surgery could be detrimental even for those patients with an underlying PDAC who would have benefitted from neoadjuvant treatment.

On these bases, if a “perfect” diagnostic procedure would be available in this setting, there would be a

Table 1. Guidelines recommendations on the management of resectable solid pancreatic masses

Scientific society, year	Region	Reference	EUS-guided tissue acquisition	Proposed approach	Neoadjuvant chemotherapy
AIOM, 2019	Italy	https://www.aiom.it/wp-content/uploads/2019/10/2019_LG_AIOM_Pancreas.pdf . [Last accessed on 2020 Apr 15].	No ⁵	Staging laparoscopy; Surgery	Yes, PEXG (Weak)
ESMO, 2015 (update 2019)	Europe	Ducieux M, Cuhna AS, Caramella C, Hollebecque A, Burtin P, Goéré D, <i>et al.</i> <i>Annals Oncol</i> 2015;26:v56-68	No	Immediate surgery	Not stated
NCCN, 2020	USA	https://www.nccn.org/professionals/physician_gls/pdf/pancreatic.pdf . [Last accessed on 2020 Apr 15].	Yes* (LoE IIa)	Staging laparoscopy; surgery	High-risk patients (LoE IIa)
JPS, 2019	Japan	Okusaka T, Nakamura M, Yoshida M, Kitano M, Uesaka K, Ito Y, <i>et al.</i> <i>Pancreas</i> 2020;49:326-65	Yes (Weak, LoE B)	Surgery	Yes, gemcitabine + S-1 (Weak, LoE C)
ESGE, 2017	Europe	Dumonceau JM, Deprez PH, Jenssen C, Iglesias-Garcia J, Larghi A, Vanbiervliet G, <i>et al.</i> <i>Endoscopy</i> 2017;49:695-714	Yes	Not stated	Not stated
EFSUMB, 2016	Europe	Jenssen C, Hocke M, Fusaroli P, Gilja OH, Buscarini E, Havre RF, <i>et al.</i> <i>Ultraschall Med</i> 2016;37:157-69	Yes ⁶	Not stated	Not stated
ASGE, 2016	USA	Eloubeidi MA, Decker GA, Chandrasekhara V, Chathadi KV, Early DS, Evans JA, <i>et al.</i> <i>Gastrointest Endosc</i> 2016;83:17-28	Yes	Surgery	Yes (not discussed)

⁵AIOM guidelines suggest EUS-guided tissue acquisition only when surgery is not indicated or when no clear features of malignancy are present; ⁶NCCN guidelines recommend EUS-guided tissue acquisition if neoadjuvant chemotherapy is considered; ⁷EFSUMB guidelines suggest tissue sampling in case of atypical features and based on local multidisciplinary team policy. AIOM: Associazione Italiana Oncologia Medica; ESMO: European Society of Medical Oncology; NCCN: National Comprehensive Cancer Network; JPS: Japanese Pancreas Society; ESGE: European Society of Gastrointestinal Endoscopy; EFSUMB: European Federation of Societies for Ultrasound in Medicine and Biology; ASGE: American Society of Gastrointestinal Endoscopy; PEXG: Cisplatin, epirubicin, capecitabine, and gemcitabine; LoE: Level of evidence; S-1: Tegafur/gimeracil/oteracil.

strong agreement on including EUS-TA in the diagnostic paradigm. Thus, EUS-TA should be reconsidered to evaluate if its limits still overcome the above-mentioned advantages. Several high-quality studies have shown that preoperative EUS-TA was not associated with an increased rate of peritoneal recurrence or mortality due to needle tract seeding.^[3] Once the potential risk related to adverse events has been ruled out, only considerations about EUS-TA diagnostic yield could justify the lack in guidelines agreement.

As Larghi *et al.* correctly addressed, EUS-TA in SPMs shows excellent specificity with suboptimal sensitivity.^[1] The not-negligible rate of false-negative results and the low-negative predictive value in this setting do not guarantee a definitive diagnosis of a benign condition after negative or nondiagnostic results. To date, this issue represents the greatest limit in the preoperative management of resectable SPMs, and even the subsequent management of nondiagnostic or inconclusive results represents a gray area. Indeed, there is no concordance on how to follow-up or which further diagnostic procedure should be performed.

We recently assessed the pooled diagnostic accuracy of repeated EUS-TA of SPMs after nondiagnostic or inconclusive results. We identified 12 studies and observed that when repeated EUS-FNA was performed with rapid on-site evaluation, eight out of ten cases were correctly diagnosed (sensitivity 83% and specificity 98%).^[4] Unfortunately, no data on repeated EUS-FNB are available yet, but we may speculate that the good EUS-FNB performance could be replied in this setting.^[5]

In conclusion, we think that recent knowledge and technical advances should be considered satisfactory to include EUS-TA in the diagnostic algorithm of resectable SPMs.

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Conflicts of interest

There are no conflicts of interest.

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