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Factors influencing surgical indication in patients with asymptomatic pancreatic cystic lesion – is EUS always indicated before surgery?

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EUS-FNA

Dear Editor, Prof. Minoti Apte,

We have read with great interest dr. Carlo Lombardo et al.'s manuscript entitled "Incidence and reasons of pancreatic resections in patients with asymptomatic serous cystadenoma" in which the Authors reported their large experience and analyzed factors leading to surgical indications in pancreatic cystic lesions (PCL) [1].

In this large population, comprising more than 1000 incidental PCL, the Authors reported very good results in terms of indications and surgical outcomes; indeed, asymptomatic serous cystadenoma (A-SCA) represented only 2.1% of all pancreatic resections, with a very low incidence of post-operative complications (see table 2 in Lombardo et al. manuscript). On the other hand, among 105 patients who underwent surgery because of asymptomatic cystic lesions, 27 (25.7%) had a pathology result of SCA [1].

We agree with the Authors that patients with SCA should be operated only if symptomatic (i.e. jaundice) because of the benign nature of the cyst. In asymptomatic patients, pathological findings of SCA should be considered an indication pitfall [2,3]. In the Italian study, only a small amount of the patients with resected SCA (7.4%) had undergone preoperative EUS. It is our opinion that the lack of EUS may account for many incorrect surgical indications.

SCAs are usually characterized by microcystic structure (2–3 mm cysts), with thin vascularized septa; although 85% of SCAs present with this typical morphological aspect, 45% of them could present a macrocystic component and up to 10% could appear as a unilocular cysts. Finally, a microcystic pseudo-solid portion can be observed in case of multiple millimetric cysts thickly huddled with each other [4,5].

In this study, the majority of SCAs presented as oligo-macrocystic neoplasms located in the body/tail portion of the pancreas and were resected because of the suspicion of mucinous cystadenoma. However, it is almost impossible to distinguish between serous and mucinous PCL with cross-sectional imaging techniques including EUS. In this setting, EUS-guided fine-needle aspiration (EUS-FNA) is indicated only when imaging studies results together with EUS are not able to discriminate cystic nature and the result is expected to change the clinical management (surgery vs. follow-up). Fluid analysis should be performed if cyst size >10 mm and should include both biochemistry (CEA and amylase) and cytology. EUS-FNA results can lead to a differential diagnosis between mucinous and non-mucinous cysts with optimal specificity; however, they are not able to draw a conclusive diagnosis on the specific cyst type and to distinguish between benign and malignant ones. Finally, while the puncture of a solid component should be managed as a solid pancreatic mass, cystic fluid analysis and cystic wall samples have to be performed with FNA needles to reduce the risk of complications (i.e. bleeding). [6–10]

On these bases, preoperative EUS could theoretically have reduced surgical over-treatment in a significant amount (up to 25%) of patients with asymptomatic PCL.

In conclusion, we think that Lombardo et al., in addition to the important messages clearly stated by the Authors, gave us indirectly another point of reflection; i.e. an accurate pre-operative evaluation including EUS (with the use of contrast agents and cystic fluid analysis) in order to spare futile pancreatic resections.

Compliance with ethical standards

The Authors declare that no funding was received and that they have no conflict of interest.

This article does not contain any studies with human participants performed by any of the authors.

Informed consent: Informed consent was not obtained because no patients are involved in the study.

References

[1] Lombardo C, Iacopi S, Menonna F, Napoli N, Kauffmann E, Bernardini J, et al. Incidence and reasons of pancreatic resection in patients with asymptomatic serous cystadenoma. pii: S1424-3903(18)30606-30609 Pancreatology 2018 Jun 8. https://doi.org/10.1016/j.pan.2018.06.001 [Epub ahead of print] PubMed PMID: 29903633.

[2] Vege SS, Ziring B, Jain R, Moayyedi P. Clinical Guidelines Committee; American Gastroenterology Association. American gastroenterological association institute guideline on the diagnosis and management of asymptomatic neoplastic pancreatic cysts. Gastroenterology 2015 Apr;148(4):819–22. https://doi.org/10.1053/j.gastro.2015.01.015. quize12-3.

[3] Italian Association of Hospital Gastroenterologists and Endoscopists; Italian Association for the Study of the Pancreas, Buscarini E, Pezzilli R, Cannizzaro R, De Angelis C, Gion M, et al. For the Cystic Pancreatic Neoplasm Study Group. Italian consensus guidelines for the diagnostic work-up and follow-up of cystic pancreatic neoplasms. Dig Liver Dis 2014 Jun;46(6):479–93. https://doi.org/10.1016/j.dld.2013.12.019.

[4] Chu LC, Singhi AD, Haroun RR, Hruban RH, Fishman EK. The many faces of pancreatic serous cystadenoma: radiologic and pathologic correlation. Diagn Interv Imag 2017 Mar;98(3):191–202. https://doi.org/10.1016/j.diii.2016.08.005.

https://doi.org/10.1016/j.pan.2018.12.004

[5] Fusaroli P, Serrani M, De Giorgio R, D'Ercole MC, Ceroni L, Lisotti A, et al. Contrast harmonic-endoscopic ultrasound is useful to identify neoplastic features of pancreatic cysts (with videos). Pancreas 2016 Feb;45(2):265–8. https://doi.org/10.1097/MPA.0000000000000441.

[6] Tanaka M, Fernández-Del Castillo C, Kamisawa T, Jang JY, Levy P, Ohtsuka T, et al. Revisions of international consensus Fukuoka guidelines for the management of IPMN of the pancreas. Pancreatology 2017 Sep - Oct;17(5):738–53. https://doi.org/10.1016/j.pan.2017.07.007.

[7] Serrani M, Lisotti A, Caletti G, Fusaroli P. Role of contrast harmonic-endoscopic ultrasound in pancreatic cystic lesions. Endosc Ultrasound 2017 Jan-Feb;6(1):25–30. https://doi.org/10.4103/2303-9027.190931. Review. PubMed PMID: 28218197; PubMed Central PMCID: PMC5331839.

[8] Fusaroli P, Napoleon B, Gincul R, Lefort C, Palazzo L, Palazzo M, et al. The clinical impact of ultrasound contrast agents in EUS: a systematic review according to the levels of evidence. Gastrointest Endosc 2016 Oct;84(4):587–96. https://doi.org/10.1016/j.gie.2016.06.006. e10.

[9] Dumonceau JM, Deprez PH, Jenssen C, Iglesias-Garcia J, Larghi A, Vanbiervliet G, et al. Indications, results, and clinical impact of endoscopic ultrasound (EUS)-guided sampling in gastroenterology: european society of gastrointestinal endoscopy (ESGE) clinical guideline - updated January 2017. Endoscopy 2017 Jul;49(7):695–714.

[10] Polkowski M, Jenssen C, Kaye P, Carrara S, Deprez P, Gines A, et al. Technical aspects of endoscopic ultrasound (EUS)-guided sampling in gastroenterology: european society of gastrointestinal endoscopy (ESGE) technical guideline - march 2017. Endoscopy 2017 Oct;49(10):989–1006.

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