

SPECIFIC COMMENTS TO AUTHORS

Comment to the Authors This is a review article of role of current role of EUS in pancreatic cancer. Several reports about EUS-procedures are being considered. This is a very interesting subject for an endosonographer, and I have a number of queries for the authors. 1) Regarding EUS-guided tissue, the needle tract seeding is seen in late complications, please also discuss the safety and risks of EUS-FNA/FNB. 2) The RCT of EUS-CPN is also reported by Kanno Y, et al (Gastrointest Endosc, 2020. 92(1):120-130). Please quote it. 3) EUS-CDS using LAMS is a regionally limited condition. Also, please discuss the time to recurrent biliary obstruction of EUS-BD. 4) Please discuss future prospects for cancer treatment such as EUS-guided RFA and EUS-FNI in conclusion.

RESPONSES TO REVIEWER

Thank you very much for taking the time to read and review our article. We really appreciate all your contributions to improve the quality of this paper. Now we will proceed to answer your valuable queries.

1. Complications due to EUS guided tissue acquisition have been described in 0.5%-3% of cases; including acute pancreatitis, infection, perforation, and bleeding. Studies comparing EUS FNA and FNB performance have not shown any difference in complication rates between these two needles. Although less frequently, needle tract seeding has also been described. This complication has a prevalence of 0.003%-0.009% with FNA needles, and to our knowledge only one case of needle tract seeding has been reported with FNB needles. Even though the risk is low, we should be aware of this risk mainly for cases in which a surgery is performed, but the needle site of puncture is not within the scope of the surgical resection.
A. Tsutsumi H, Hara K, Mizuno N, Hijioka S, Imaoka H, Tajika M, Tanaka T, Ishihara M, Yoshimura K, Shimizu Y, Niwa Y, Sasaki Y, Yamao K.

Clinical impact of preoperative endoscopic ultrasound-guided fine needle aspiration for pancreatic ductal adenocarcinoma. *Endosc Ultrasound* 2016; 5: 94-100 [PMID: 27080607 DOI: 10.4103/2303-9027.180472]

B. Katanuma A, Maguchi H, Yane K, Hashigo S, Kin T, Kaneko M, Kato S, Kato R, Harada R, Osanai M, Takahashi K, Nojima M. Factors predictive of adverse events associated with endoscopic ultrasound-guided fine needle aspiration of pancreatic solid lesions. *Dig Dis Sci* 2013; 58: 2093-2099 [PMID: 23423501 DOI: 10.1007/s10620-013-2590-4]

C. Mariam Naveed, Ali A. Siddiqui, Thomas E. Kowalski, David E. Loren, Ammara Khalid, Ayesha Soomro, Syed M. Mazhar, Joseph Yoo, Raza Hasan, Silpa Yalamanchili, Nicholas Tarangelo, Linda J. Taylor, Douglas G. Adler. A Multicenter comparative trial of a novel EUS- guided core biopsy needle (SharkCore™) with the 22- gauge needle in patients with solid pancreatic mass lesions. *Endoscopic Ultrasound* 2018; 7: 34-40 DOI: 10.4103/eus.eus_27_17

D. Ruo-Yu Gao, Ben-Hua Wu, Xin-Ying Shen, Tie-Li Peng, De-Feng Li, Cheng Wei, Zhi-Chao Yu, Ming-Han Luo, Feng Xiong, Li-Sheng Wang, Jun Yao. Overlooked risk for needle tract seeding following endoscopic ultrasound-guided minimally invasive tissue acquisition. *World J Gastroenterol* 2020; 26: 6182-6194 DOI: 10.3748/wjg.v26.i40.6182

2. Thank you for query regarding the paper written by Kanno Y, et al. We have made a modification in the text to add this important information.

Regarding timing of neurolysis, a randomized control trail concluded that

early CPN reduces pain and decreases the morphine consumption in patients with advance pancreatic adenocarcinoma. A more recent randomized control trail has shown no difference with opioid consumption regarding pain score and quality of life.

A. Kanno Y, Koshita S, Masu K, Ogawa T, Kusunose H, Murabayashi T, Sakai T, Kozakai F, Ito K. Efficacy of EUS-guided celiac plexus neurolysis compared with medication alone for unresectable pancreatic cancer in the oxycodone/fentanyl era: a prospective randomized control study. *Gastrointest Endosc* 2020; 92: 120-130

3. Even though LAMS are highly useful for EUS BD approach, it is a regionally limited device.

Regarding the risk of recurrent biliary obstruction, EUS BD has a lower risk of tumor ingrowth but a higher risk of food impaction, compared to ERCP BD. Stent patency for EUS BD is comparable to ERCP BD. A study by Park et al. described a cumulative stent patency of 379 days for EUS BD.

A. Park JK, Woo YS, Noh DH, Yang JI, Bae SY, Yun HS, Lee JK, Lee KT, Lee KH. Efficacy of EUS-guided and ERCP-guided biliary drainage for malignant biliary obstruction: prospective randomized controlled study. *Gastrointest Endosc* 2018; 88: 277-282

4. CONCLUSION:

Since its introduction as an endoscopic technique, EUS has evolved through time from a diagnostic imaging device towards a therapeutic tool mainly for cancer palliative management. Considerable progress has been recognized particularly in the diagnosis and management PDAC. New imaging techniques can improve differential diagnosis of focal pancreatic

lesions and could decrease bias of human imaging interpretation. Actually EUS is the standard method for tissue acquisition and the development of new “cutting” needles allow procurement of core tissue for molecular profile and personalized oncological treatment. An outstanding progress has been developed in EUS interventional procedures mainly for biliary drainage and local tumor ablation, with good technical and clinical success and less complications compared to other techniques. Future randomized control trails should be directed to evaluate the role of EUS guided treatment such as RFA for unresectable pancreatic cancer or patients unsuitable for surgery. Actually diagnostic and interventional EUS has become essential in the workup and management of PDAC.