

EDITORIAL

The Coming of Age of Pancreatic Endoscopy as an Endoscopic Subspecialty

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The role of ERCP is quite well-established in endoscopy practice; multicentric, comparative studies [1] and meta-analysis [2] have further contributed to clarify ERCP strengths and limits [3,4]. Recent developments such as pancreatoscopy, have become more easily available [5]. Since the introduction of EUS into clinical practice, more than 30 years have passed, however it is not until practitioners realized the diagnostic and therapeutic possibilities of mainly linear Endoscopy, that EUS has shown such a meteoric rise.

Although quite evident for many of the "older" practitioners (corresponding author included- linear EUS, 20 years ago), ERCP & EUS belong with each other in the management of Pancreatic Disease [6]; it is only until 10 years ago that the floodgates were opened. This happened because of the more than obvious advantages of performing multiple procedures in one patient at one sitting. Training in EUS by including this technique in the one-year Advanced Endoscopy Fellowship instead of having to "choose" one or the other (that is EUS or Advanced Endoscopy), also produced a larger number of endosonography practitioners. Specially designed accessories with therapeutic EUS in mind contributed also, albeit still lacking in variety compared the ones available for other endoscopic procedures [7].

Established indications, such as FNA [8] or core biopsy for the diagnosis of diverse solid or cystic pancreatic benign or malignant conditions [9,10], EUS-guided Celiac Plexus Block or Neurolysis for the treatment of pain associated to chronic pancreatitis or pancreatic cancer [11] and pseudocyst or peripancreatic collection drainage [12,13,14], have now become standard practice as well as accepted first line options in the diagnosis and

treatment of collegiate and evidence-based collaborations such as National Cancer Center Network guidelines [15]. Other invasive procedures using EUS as guidance are in line for widespread clinical use, such as biliary drainage in obstructive pancreatic malignant tumors [16, 17] and procedures to access the main pancreatic in difficult cases and working in concert with ERCP [18]. Upcoming procedures (not yet widespread) revolutionary in-vivo, real-time imaging of the pancreatic parenchyma or cystic tumor walls such as Confocal-Laser Endomicroscopy [19], Elastography [20] and Contrast-Enhanced EUS imaging [21] has just recently shown to be useful for the diagnosis of pancreatic neoplasia in difficult cases, by providing more specificity. Blood sampling from portal vessels to capture pancreatic cancer cells, not only provides a diagnosis of cancer cells with metastatic potential but also provides together with FNA, a sample of the microenvironment that can be used in basic research [22]. EUS as the method of choice for screening and surveillance of patients at high-risk for development of pancreatic cancer is being studied at numerous Centers [23].

Other advances include direct endoscopic treatment of pancreatic cancer, such as Ethanol Injection or Paclitaxel [24, 25] of selected cystic neoplasms or injection of a reproducible, effective agent [26] directly into the tumor under EUS. Radio-Frequency Ablation has also recently appeared, to deliver energy into the bile duct in cases of pancreatic cancer as well as into cystic or solid neoplasms in the pancreatic parenchyma. The Future is bright for Pancreatic Endoscopy [27]. Hail to the "new" Queen!!!

Conflict of Interest

Corresponding Author is share-holder of Axios-Stent, Boston Scientific, Inc. and Consultant for Olympus (Mexico).

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