

#129 - EFFICACY AND SAFETY OF ENDOSCOPIC ULTRASOUND-GUIDED RADIOFREQUENCY ABLATION IN THE TREATMENT OF SOLID PANCREATIC TUMORS: CUMULATIVE EXPERIENCE IN COSTA RICA

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Introduction: Endoscopic ultrasound-guided radiofrequency ablation (EUS-RFA) is a minimally invasive treatment modality for solid pancreatic tumors such as pancreatic neuroendocrine neoplasms (p-NEN) and unresectable pancreatic cancer (PC).

Aims: assess safety and efficacy of pancreatic EUS RFA therapy in a large case series of patients with p-NEN and unresectable PC in three high volume hospital centers in Costa Rica.

Methods: This retrospective study included all consecutive patients who underwent pancreatic EUS RFA between May 2020-April 2023. Indications, procedural characteristics, early and late adverse events, and clinical outcomes were recorded. Technical success rate was defined as successful access with the 19-gauge needle into pancreatic neoplasm and feasibility of EUS-RFA, and clinical success as complete or partial radiological response for non-functioning p-NEN (NF-NEN), and resolution of symptoms for insulinomas. Patients with pancreatic cancer were excluded. Major and minor postprocedural adverse effects were assessed.

Results: 45 ablations were performed in 29 patients, of whom 15 were PC (N=13 locally advanced and N=2 metastatic) and 14 were p-NEN (N=8 NF and N=6 insulinomas). Sixty-nine percent (N=20) were female, with a median age of 58 years (IQR:12-83). Median lesion diameter was 30 mm (IQR:10-80). Clinical and procedure-related characteristics are summarized in Table 1. The technical success rate was 100%. In the subgroup of patients with p-NEN clinical success was complete and partial in 57% and 43%, respectively; with a complete clinical response of hypoglycemia in 83% (N=5/6) of insulinomas in the first 48 hours. The adverse event rate was 14% (N=4), with mild pancreatitis being the most frequent. No serious adverse events or procedure-related deaths occurred. All patients with PC underwent concomitant chemotherapy within two days after ablation.

Conclusions: EUS-RFA is a technically feasible treatment with a good safety profile for the management of solid pancreatic tumors (PC and p-NEN).

Table 1: Clinical and procedure-related characteristics of EUS-RFA

Variable	N=29 (%)	Median (IQR)
Age (years), median (IQR)		58 (12-83)
Sex:		
- Female	20 (69)	
- Male	9 (31)	
Type of lesion:		
- Locally advanced PC	13	44.8
- Metastatic PC	2	7
- NF-NEN		
- Insulinoma	8	27.6
	6	20.6
Location:		
- Head	16	55
- Body	6	21
- Head-neck		
- Uncinate	5	17
- Tail	1	3.5
	1	3.5
Maximum diameter (mm)	29.8	10-80
Technical success	29	100
Clinical success:		
NF-NEN(N=8):		
- Complete response	3	37.5
- Partial response	5	62.5
Insulinoma (N=6):		
- Complete response	5	83.3
- Partial response	1	16.7
Complications:		
- None		
- Pancreatitis	25	86.2
- Colangitis	3	10.3
	1	3.5
Mortality (N=9, 31%):		
- Locally advanced PC	6	66.7
- Metastatic PC	2	22.2
- NF-NEN	1	11.1