Revista Española de Enfermedades Digestivas
The Spanish Journal of Gastroenterology

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DOI: 10.17235/reed.2025.11119/2025
Link: PubMed (Epub ahead of print)

Please cite this article as:
Lu Lu, Chen Chaowu, Liu Jun, Liao Jiyu, Han Weiwei. Endoscopic retrograde cholangiopancreatography resection of a neuroendocrine tumor in the papilla of Vater. Rev Esp Enferm Dig 2025. doi: 10.17235/reed.2025.11119/2025.

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Endoscopic retrograde cholangiopancreatography resection of a neuroendocrine tumor in the papilla of Vater

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Authors´ contributions: Design of the study: Lu Lu and Weiwei Han; collection of the information of the patient: Jun Liu and Chaowu Chen; writing and review the article: Lu Lu and Jiyu Liao. All authors have read and agreed to the published version of the manuscript.

Informed consent statement: informed consent was obtained from the patient.

Conflict of interest: the authors declare no conflict of interest.

Artificial intelligence: the authors declare that they did not use artificial intelligence (AI) or any AI-assisted technologies in the elaboration of the article.

Keywords: Papilla of Vater. Neuroendocrine tumor. ERCP.

Dear Editor,

Neuroendocrine tumors (NETs) of the Papilla of Vater are rare. We present the case of a 48-year-old male who was referred after a papillary mass was detected in an

upper GI endoscopy. MRCP showed bile duct dilation and a 9 mm nodule in the papilla of Vater. Endoscopic ultrasonography identified a hypoechoic lesion. Snare papillary resection of the enlarged papilla was performed (figure1). The snare tip was positioned at the tumor apex, gradually expanded to encircle the base, and tightened to ensure complete tumor inclusion. A papillectomy was performed, followed by pancreatic duct stenting after guidewire cannulation. Hemostasis was achieved using hot biopsy forceps and titanium clips. Histopathology confirmed a G1 NET tumor. Follow-up Endoscopic retrograde cholangiopancreatography (ERCP) performed one year later revealed no recurrence, with biopsy showing only inflammatory changes.

Discussion

Gastrointestinal neuroendocrine tumors are heterogeneous neoplasms originating from peptide-producing neurons or neuroendocrine cells. They are rare, and the preferred sites of occurrence are, in order, the appendix, small intestine, rectum and colon, stomach, and duodenum[1]. Those originating in the papilla of Vater are even rarer.

Since the papilla is a relatively small, flat elevation with an irregular shape, tumors occurring there are prone to be missed or misdiagnosed. Papillectomy is an advance ERCP technique that requires skills and precision. This is because the anatomical structure of the papillary area is complex. Excessive resection can easily lead to bleeding or even perforation, while insufficient resection may result in positive margins. However, even with incomplete resection, regardless of the type of positive margin (lateral or vertical) and the endoscopic resection technique used, the tumor recurrence rate is only 8.6%.

It appears that there are no difference compared with the group with negative margins, and no salvage surgery is required. [2] . Therefore, papillectomy for neuroendocrine tumors is feasible and perhaps should be the preferred initial treatment.

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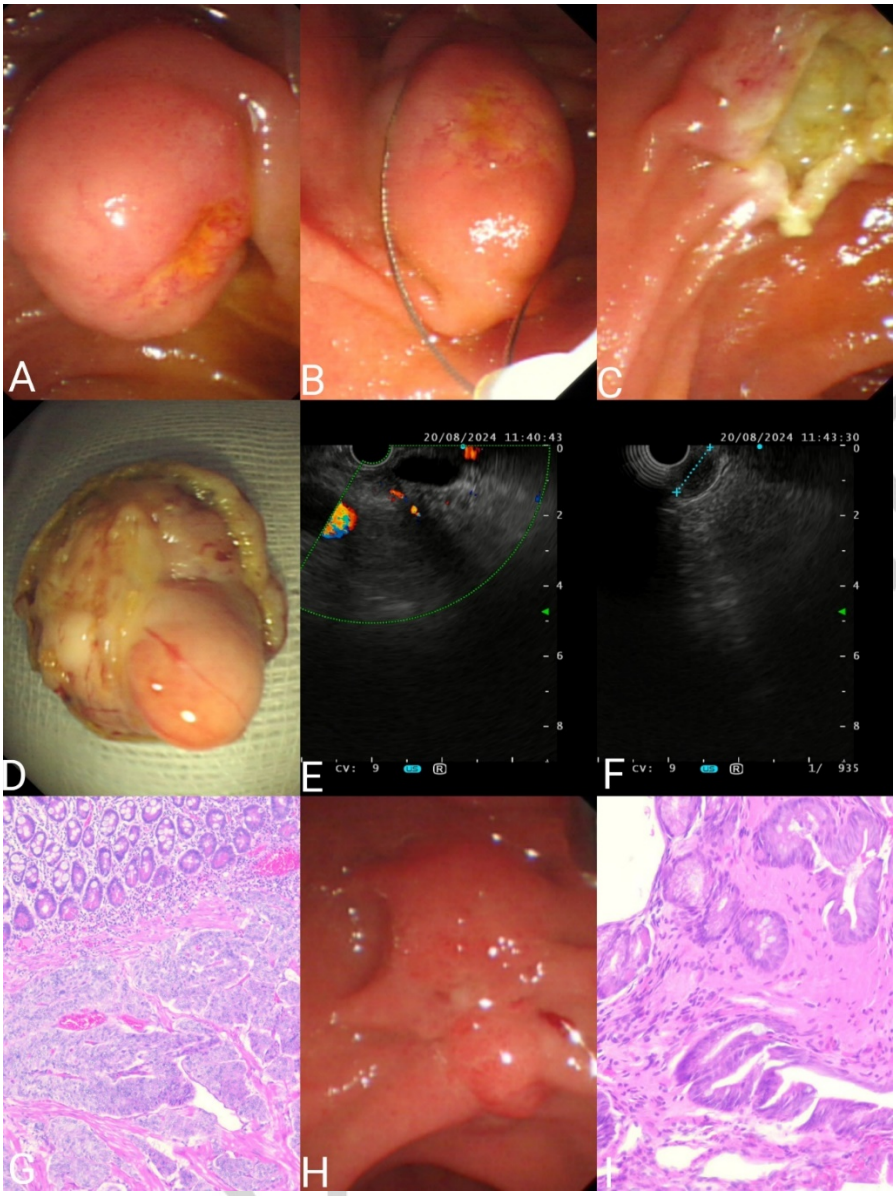

Fig.1A. During the operation, a bulge was observed at the nipple area. The mucosa was smooth, with central erosion and a yellowish color. B. Adjust the position of the snare to completely encircle the tumor. C. After snaring and removing the tumor, use a hot biopsy forceps to cauterize the wound surface for hemostasis. D. Remove the tumor mass intact. E. F. Findings of endoscopic ultrasonography: The duodenal papilla is significantly enlarged, the common bile duct is dilated with a diameter of 1.2 cm. A hypoechoic mass is visible at the ampulla of the distal bile duct, measuring approximately 1.5×2.0 cm. G. Under the microscope of the pathological section, the tumor cells are arranged in trabecular and nest-ed patterns. The cells are relatively uniform in size, and the nuclei are round or oval - shaped.

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Immunohistochemical staining shows that the tumor cells are positive for broad - spectrum cytokeratin (CKpan), synaptophysin (Syn), chromogranin A (CgA), and CD56 (focal positive), also positive for CK7, with a Ki67 positive rate of approximately 2%. H. Reexamination by ERCP shows no tumor. I. Upon re - examination with pathological sampling, under the microscope, the tissue shows mucosal tissue, with some parts presenting a papillary shape. In the stroma, inflammatory cells such as lymphocytes, plasma cells, and neutrophils can be seen infiltrating, and adipose tissue is present in focal areas.