A Unique Case of Paroxysmal Anxiety Leading to the Diagnosis of a Rarely Seen Neuroendocrine Tumor at the Ampulla of Vater

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Introduction

• This patient had occasional anxiety, a symptom often seen in clinical practice. However, this led to an in depth analysis of her labs which in turn led to the rarely seen diagnosis of a neuroendocrine tumor at the ampulla of vater

Case Report

- Chief complaint: “I get nervous sometimes”
- 37 year old African American female
- Anxiety was not situational and had no obvious trigger or stressor, would occur randomly
- She denied having a previous history of anxiety as a child, adolescent or young adult
- Denied any skin flushing, diarrhea, frequent urination, increased thirst, hoarseness, shakiness, cough, jaundice

Hospital course

- Laboratory values showed elevated alkaline phosphatase and liver function tests
- Chart checking revealed that these lab values had been elevates on previous lab draws (dating back one year)
- Negative for the following: Immunoglobulin A, celiac panel, hepatitis panel, human immunodeficiency virus, ceruloplasmin, AFP tumor marker, anti-mitochondrial antibody, anti-smooth muscle antibody
- Abdominal ultrasound: mildly dilated bile duct
- Magnetic resonance cholangiopancreatography: dilatation of intrahepatic, extrahepatic and common bile ducts with a possible lesion at the ampulla of vater
- Endoscopic ultrasound with biopsy of the ampulla of vater: revealed a well differentiated neuroendocrine tumor
- She was referred to surgery for removal of the tumor.

Discussion

- Neuroendocrine tumors involving the ampulla of vater are rarely seen in clinical practice. But it is important for physicians to be aware they do they occur
- The clinical presentation of this patient was relatively benign which highlights the fact that patients can present in several different ways, thus a high clinical suspicion needs to be maintained and history taking may guide one to add such a rare pathology to their differential
- The patients non specific symptoms could have led to no further work-up, however the constant elevation of her labs (alkaline phosphatase and liver function tests) could not otherwise be explained. This highlights the need for physicians to seek answers for as to why certain labs are presenting the way they are, and the fact that these labs had been chronically elevated indicated that there was some form of long term process occurring
- Whist not every patient will be considered for such a diagnosis, benign aware that patients can present with relatively benign symptoms and have such a serious mass in a crucial location shows that even though we may not see certain medical abnormalities on a daily basis that does not mean they do not occur.

Neuroendocrine tumors of the duodenum and ampulla of Vater TNM staging AJCC UICC 8th edition

Primary tumor (T)	
T category	**T criteria**
TX	Primary tumor cannot be assessed
T1	Tumor invades the mucosa or submucosa only and is ≤1 cm (duodenal tumors). Tumor ≤1 cm and confined within the sphincter of Oddi (ampullary tumors).
T2	Tumor invades the muscularis propria or is >1 cm (duodenal). Tumor invades through sphincter into duodenal submucosa or muscularis propria, or is >1 cm (ampullary).
T3	Tumor invades the pancreas or peripancreatic adipose tissue
T4	Tumor invades the visceral peritoneum (serosa) or other organs
NOTE: Multiple tumors should be designated as such (and the largest tumor should be used to assign the T category): ▪ If the number of tumors is known, use T(#); eg, pT3(4) N0 M0. ▪ If the number of tumors is unavailable or too numerous, use the m suffix, T(m); eg, pT3(m) N0 M0.	
Regional lymph nodes (N)	
N category	**N criteria**
NX	Regional lymph nodes cannot be assessed
N0	No regional lymph node involvement
N1	Regional lymph node involvement
Distant metastasis (M)