Concurrent Diagnosis of a Gastric Neuroendocrine Tumor and an Adjacent Adenoma: An Approach to Diagnosis and Management

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'7cffYgdcbX]b['Uih\cf. Michael Kwan, Department of Gastroenterology, Lyell McEwin Hospital, South Australia, Tel: + 14036301248; E-mail: kwan.mike@gmail.com

FYWY]jYX'XUhY. October 25, 2018; 5WWYdhYX'XUhY. November 08, 2018; DiV']g\YX'XUhY. November 18, 2018

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The incidence of gastric Neuroendocrine Tumors (NETs) has been rising with the increasing use of diagnostic gastroscopy. Correctly differentiating a NET from a gastric adenoma is essential prior to embarking on further endoscopic management. Both of these lesions have distinct characteristics that can be identified endoscopically. We report a case of a patient who presented with a concurrent diagnosis of a gastric NET and adenoma and contrast their respective appearances endoscopically and the experience with their subsequent endoscopic resections.

?YmkcfXg.' Neuroendocrine tumor; Adenoma; Endoscopic mucosal resection; Endoscopic submucosal dissection

Introduction

Gastric Neuroendocrine Tumors (NETs) have historically been dUssif ed as rare tumors of the foregut [1]. However, with the increased use of diagnostic endoscopy and improved awareness of these tumors, the incidence of these tumors has been increasing [2,3]. Gastric NETs now account for 0.6%-2% of all gastric polyps [4].

Type 1 carcinoids represent 70%-80% of gastric NETs and are associated with chronic atrophic gastritis. Endoscopically, they are usually polypoid, small in size, multicentric and can be mistaken for erosions or adenomas [5]. Narrow-band Imaging (NBI) with magnifying endoscopy has been used to describe a disappearance of normal pit structure centrally with a yellowish hue underneath the epithelium [6].

Gastric adenomas are dysplastic, neoplastic precursors to gastric cancer that account for 6%-10% of all gastric polyps in Western populations and up to 25% in Asian populations [7,8]. Endoscopically, they appear lobulated, f'Ut or sessile and can range from a few millimeters to centimeters in size [9].

Under magnifying chromoendoscopy, gastric adenomas were dlissifed as having a long tubular pit pattern in the absence of dysplasia [10] and absent mucosal patterns with irregular vascular patterns with dysplasia [11]. ey are most commonly located in the antrum and are solitary.

Whereas non-malignant adenomas originate and are generally confined to the mucosa, gastric NETs invade the sub mucosa [12]. Awareness of this distinction is especially important prior to embarking on attempted endoscopic resections of these lesions as traditional resection techniques can result in inadequate margins or perforation [13].

With the rising incidence of gastric NETs, the diagnosis and management of these tumors become increasingly relevant for all endoscopists. using describe a case of a patient presenting with a concurrent diagnosis of gastric NET adjacent to a gastric adenoma.

e endoscopic descriptions of each and experience with their subsequent resections is contrasted and discussed.

Case Description

A 76-year-old gentleman was referred for further management of gastric neuroendocrine tumors discovered as part of his anemia workup. Two lesions 4 cm apart were identified at the time of follow-up endoscopy. Lesion 1 (Figure 1) was approximately 8 mm in diameter and had an area of architectural loss of mucosal pattern and irregular vascular pattern on NBI consistent with a dysplastic gastric adenoma.

is was resected *via* Endoscopic Mucosal Resection (EMR) without complication. Lesion 2 (Figure 2A, B) was approximately 12 mm in diameter and had normal overlying pit pattern similar to the surrounding gastric mucosa and displayed an underlying yellowish hue consistent with a NET.

As can be seen in Figure 2C, it was dicult to achieve an adequate licof the NET U er multiple injections. In light of this, Endoscopic Submucosal Dissection (ESD) was performed.

Final histology revealed lesion 1 to be a gastric tubular adenoma with low and high grade dysplasia. Lesion 2 was found to be a grade 1 NET with no dysplasia, no lymph vascular emboli and Ki67 of 7%. ere was no invasion of the NET into the overlying gastric epithelium.

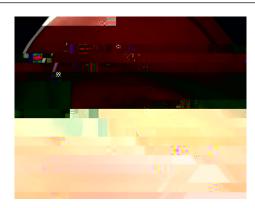


Figure 1(A): Gastric adenoma.

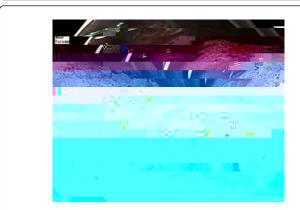


Figure 1(B): Gastric adenoma with narrow band imaging



Figure 2(A): Gastric NET.

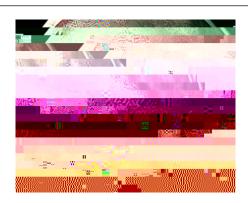


Figure 2(B): Gastric NET with narrow band imaging



Figure 2(C): Gastric NET failing to li with injection.

Discussion

Gastric NETs are rare foregut neoplasms. e concurrent presentation of a gastric NET with a gastric adenoma in the same patient is even more uncommon, providing a unique opportunity to contrast their respective endoscopic appearances and subsequent resections. In this case, the gastric adenoma had an area of architectural loss of mucosal pattern and irregular vascular pattern with mUgnif ed NBI. In contrast, the NET had a normal overlying pit pathad dimag pque osp s