



A Rare Case of Submucosal Granular Cell Tumor Presenting as a Single Colon Polyp

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Introduction

- Granular cell tumor (GCT) is a soft tissue neoplasm that is known to originate from Schwann cells.
- Only 5-11% arise within the gastrointestinal tract with the majority occurring within the esophagus.
- Rarely, GCT may arise in the colon mimicking a benign colon polyp. We present an unusual case of a patient diagnosed with a colonic submucosal GCT.

Case Description

- A 61-year-old male with past history of gastroesophageal reflux disease presented with mild intermittent diffuse aching abdominal pain for the last 10 years. The patient reported a single episode of hematochezia at the time of symptom onset.
- Colonoscopy revealed an 8 mm firm submucosal nodule in the ascending colon. The lesion was completely resected using hot snare.
- Histopathologic exam of the specimen revealed large polyclonal cells with abundant granular, eosinophilic cytoplasm and wavy nuclei.
- Immunohistochemical analysis confirmed the diagnosis of GCT by positive staining of S-100 and CD68. The patient was scheduled for surveillance colonoscopy.



Figure 1. Colonoscopy image of granular cell tumor in the ascending colon appearing as an 8 mm submucosal nodule.

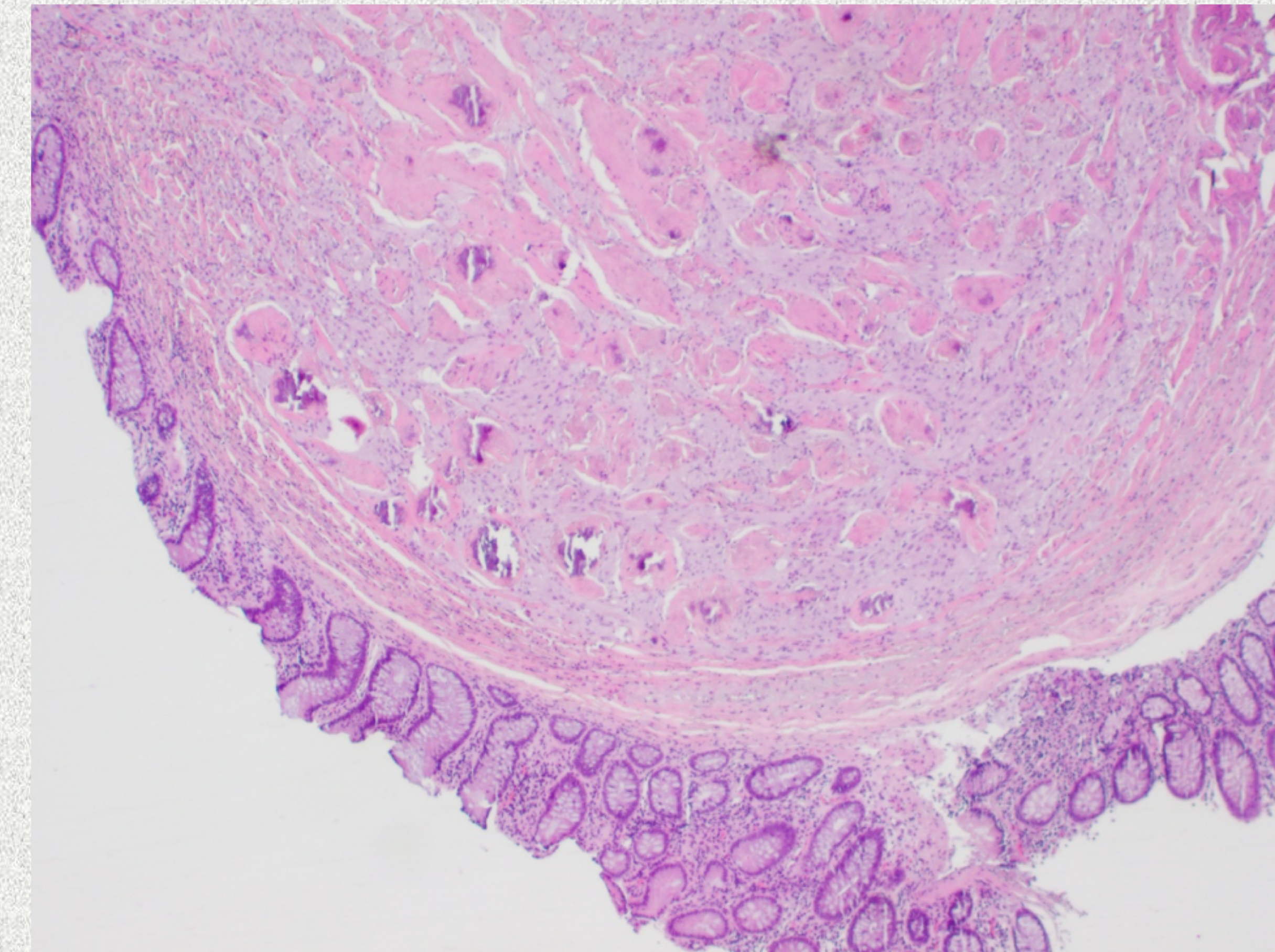


Figure 2. H&E stain showing submucosal tumor covered with normal mucosa (magnification 40x).

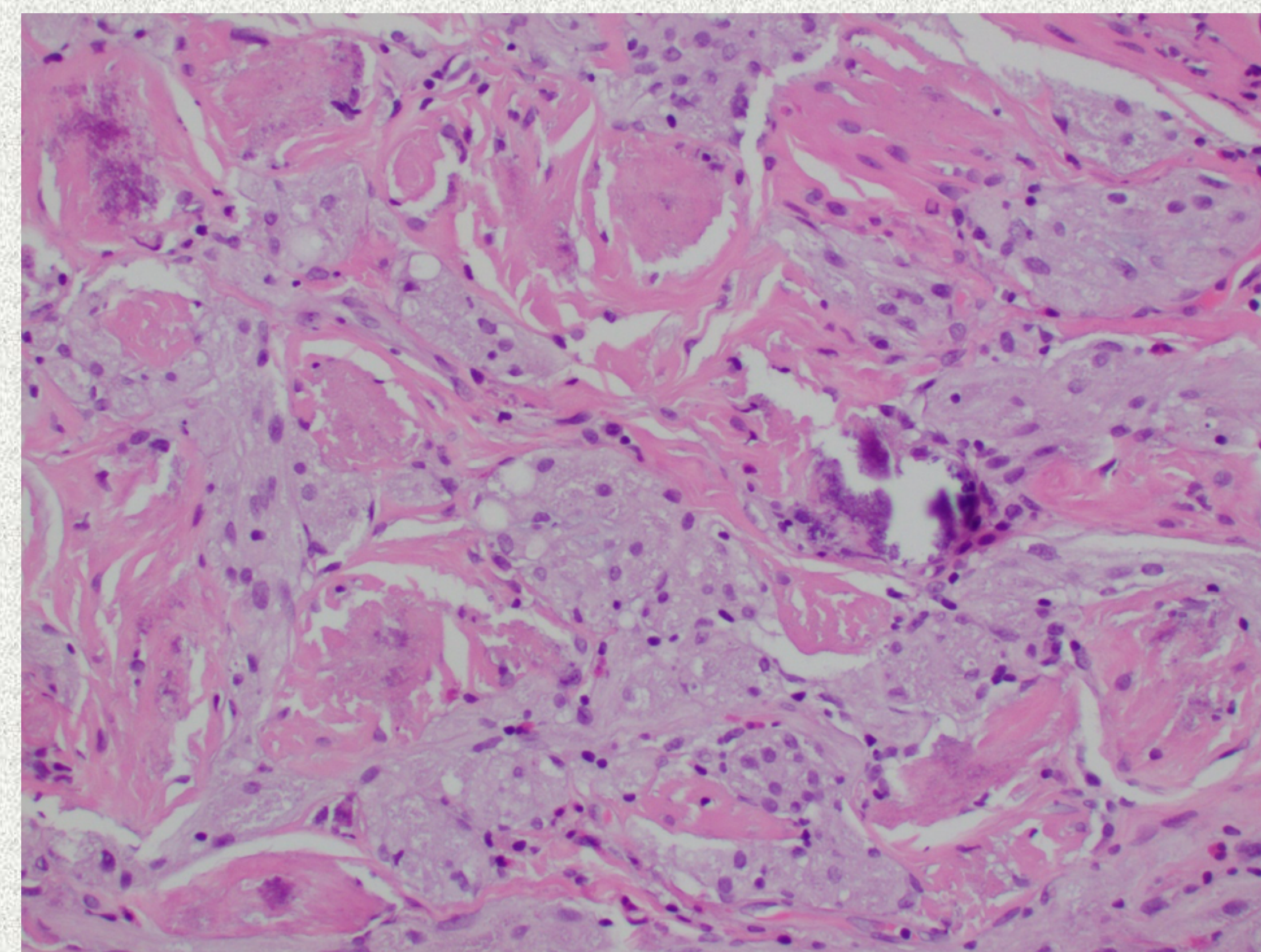


Figure 3. H&E stain showing large polyclonal cells with abundant granular, eosinophilic cytoplasm and wavy nuclei (magnification 200x).

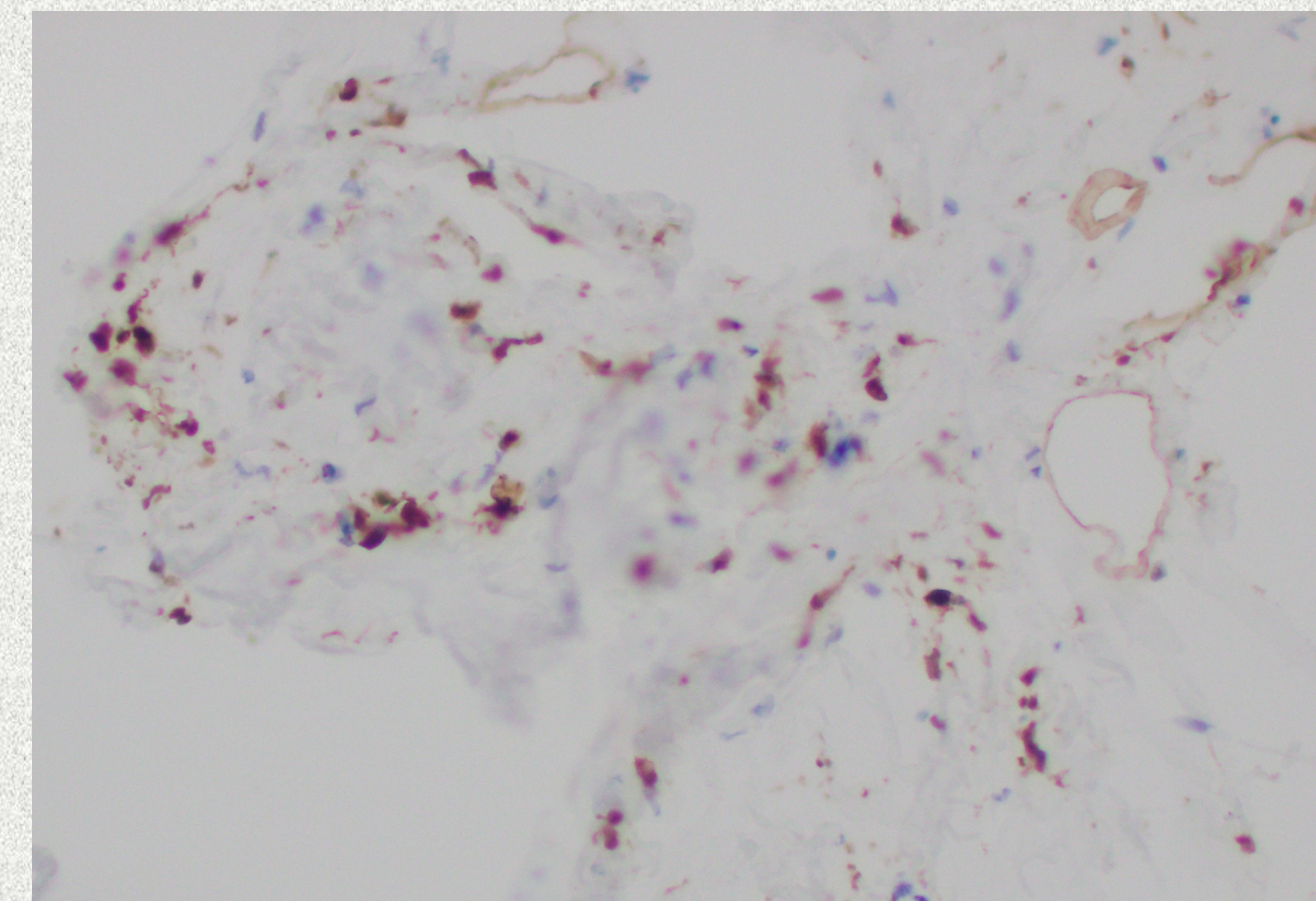


Figure 4. Immunohistochemical analysis showing positive staining of S-100 (magnification 200x).

Discussion

- GCT is most commonly seen in middle-aged women in the head, neck, skin, and subcutaneous tissues.
- 65% of gastrointestinal GCTs arise within the esophagus followed by the duodenum, anus, and stomach.
- Although the majority of GCTs are benign there is a 1-2% risk of malignancy. Malignant GCTs have a poor prognosis with a reported 3-year mortality of 60% with high rates of recurrence and metastasis.
- Colonic GCT is extremely rare with 130 cases reported so far to our knowledge.
- Depending on tumor size and extent, complete resection with polypectomy vs endoscopic mucosal resection is the safest and recommended treatment for submucosal GCTs with follow-up colonoscopy.

Conclusions

- As the majority of colonic GCTs have a benign appearance on endoscopic examination, it's important to follow up with histopathological analysis to differentiate it from other colonic lesions.
- Gastroenterologists should consider GCT in the differential diagnosis of submucosal colonic tumors.