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UNUSUAL TUMOR OF STOMACH – INFLAMMATORY FIBROID POLYP

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Abstract:

Inflammatory fibroid polyp (IFP) in stomach is a rare entity with incidence of less than 0.1% of all gastric polyps. Proliferation of highly vascular fibrous tissue and infiltration by a variable number of different inflammatory cells is the characteristic seen in IFP. Commonly Arises from submucosa of gastric antrum. Here we present a case of IFP in a 55yr old female who presented with features of gastritis.

KEYWORDS: Fibroid, gastric polyp, Vanek tumor

Introduction

Inflammatory fibroid polyp was first described by Vanek in 1949 as a 'submucosal granuloma with eosinophilic infiltration'(1). A plethora of different names have been suggested to describe IFP, such as eosinophilic granuloma, granuloblastoma or gastric fibroma with eosinophilic infiltration, granuloma with eosinophils, hemangiopericytoma, inflammatory fibroid tumor, and inflammatory pseudotumor (2). IFP is a benign polypoidal intraluminal tumor which is usually solitary (2). They are typically noninvasive, non-ulcerated, and eosinophilic submucosal tumors (SMT) with spindle cell proliferation (3). Stolte reported the incidence of IFP in his study with 143 cases that the polyp was located at the antrum in 77.6%, in the angular notch region in 9.8%, in the pylorus in 1.4%, and in the fundus and cardia in only 0.7% (4). Immunohistologically, IFPs are characterized by spindle cells with unclear origin, positive for CD34 and vimentin, and negative for CD117 (5). A variety of clinical signs and symptoms are linked to IFP, mainly GI bleeding or abdominal pain, but the clinical presentation may significantly vary, and it mimics other pathology.

Case Report

55yr old hypertensive female presented to surgery OPD with one month history of upper abdomen pain with no other significant history and further examination of patient revealed a epigastric tenderness with no guarding or rigidity. She was evaluated with USG abdomen which revealed a cholelithiasis, right ovarian adnexal cyst and mass from posterior wall of stomach. Hence further evaluation done with Contrast enhanced CT abdomen which showed features of leiomyoma of stomach, pancreatic Pseudocyst and right ovarian cyst -? Serous cyst adenoma. Tumor markers like CA 125, CEA, CA 19-9, LDH and Beta Hcg were done and were negative. UGI Scopy was done and revealed a prominent swelling with ulceration in the posterior wall of stomach and hence a provisional diagnosis of GIST was made.

We proceeded with Lap assisted Distal Gastrectomy with Roux en Y gastrojejunostomy and jejuno-jejunostomy, cholecystectomy and right ovarian cystectomy. On POD 4 patient started on sips of water and POD 5 on clear liquids. On POD 6 patient developed upper abdomen pain with guarding and abdomen drain showed 50 ml bile. Patient was observed overnight and decision of D- Lap was made. On POD 7 patient underwent D- Lap and found to have a duodenal stump perforation with dense adhesion between liver and peritoneum with flakes and hence Laparoscopic closure of perforation with modified Graham's patch and peritoneal lavage was done. On POD 5 after Relook surgery patient was started on diet and was tolerated. Histopathology revealed a inflammatory fibroid polyp of stomach with CD 34 positive and CD 117 and DOG 1 negative and ovarian serous cystadenoma. Post operatively patient improved and on POD 10 abdomen drain removed and patient was discharged on POD 15.

Discussion

The term inflammatory fibroid polyp was first proposed in 1953 by Helwig and Ranier (6). As a result, IFP has now been defined as a benign lesion of the GI tract derived from the submucosa. IFP affects women more frequently (1.3:1 female to male ratio) (2). IFPs are more frequent in the gastric antrum (66-75%), small bowel (18-20%), specically in the ileum, colon (47%), gallbladder (1%), esophagus (1%), duodenum (1%), and appendix (<1%) (7). The true pathogenesis of IFP is currently unknown. Historically, the etiology was thought to be the result of an inflammatory response to an underlying granuloma. The development of a submucosal granuloma is often associated with an irritating stimulus (e.g. trauma, tuberculosis, helicobacter pylori, Crohn disease, sarcoidosis) (8).

Despite the fact that some patients remain asymptomatic, IFP tends to present with a variety of different symptoms mimicking other pathology. The asymptomatic cases might be the result of smaller lesions, especially in larger organs (e.g. stomach) where it might take longer for an IFP to cause any symptoms. IFP can present as Dysphagia, vomiting, protrusion of a mass through the oral cavity, weight loss, fever, epigastric pain, malena and as acute obstruction.

It is characterized pathologically by the presence of CD34 staining spindle cells, a prominent network of blood vessels, fibromyxoid stroma and an inflammatory infiltrate, typically dominated by eosinophils. Perivascular spindle cell "onion skinning" is present in about half of the lesions (9,10). IFPs are most commonly positive for vimentin and CD34, and negative for S100, CD117 and desmin (11). Additional diagnostic modalities including immunohistochemistry staining, tandem biopsies, and endoscopic ultrasound (EUS) may also be necessary to correctly identify the polyp type (12).

Once the diagnosis of IFP is made, the decision to resect the polyp should be based on both the clinical presentation of the patient and the expertise of the gastroenterologist. Patients presenting with early satiety, chronic epigastric pain, or obstruction should undergo resection. Those who present with an acutely bleeding polyp should be treated swiftly by localizing the lesion and achieving adequate hemostasis. Once the patient is stabilized, eventual polyp resection is suggested to avoid similar adverse events in the future. Following IFP resection, pathological analysis should be initiated to confirm the diagnosis and rule out any potential for malignancy. Finally, because IFPs have no documented malignant potential, routine endoscopic follow-up is not recommended for both post-operative and asymptomatic patients (12).

Conclusion

In conclusion, we presented a rare case of IFP with features of gastritis at the body of the stomach, which was treated using laparoscopic assisted Distal Gastrectomy with Roux en Y gastrojejunostomy and jejuno-jejunostomy.

Declarations

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Conflict of interest: none declared

Ethical approval: none required

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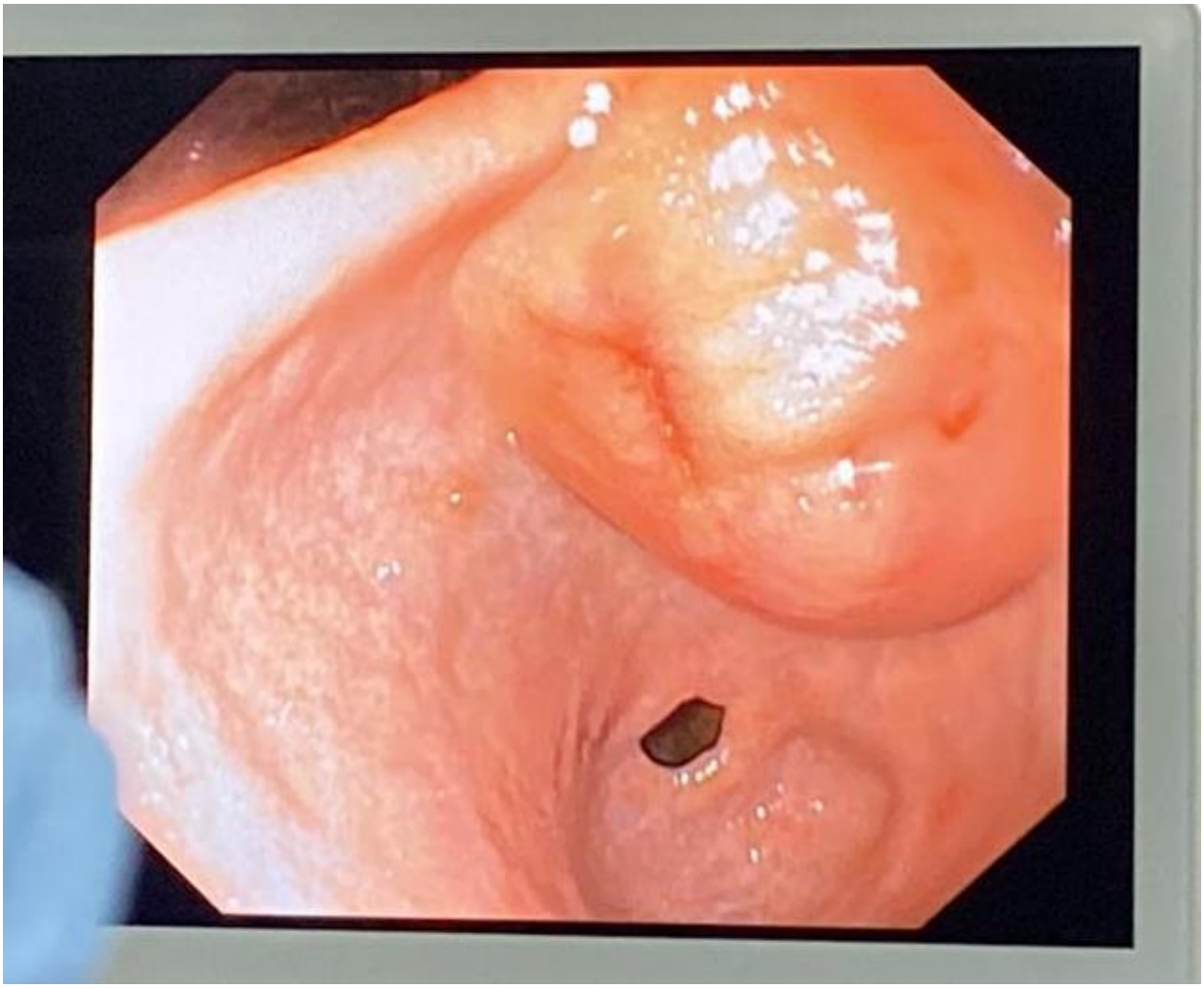

Figure 1: Endoscopy view of Inflammatory Fibroid Polyp of stomach

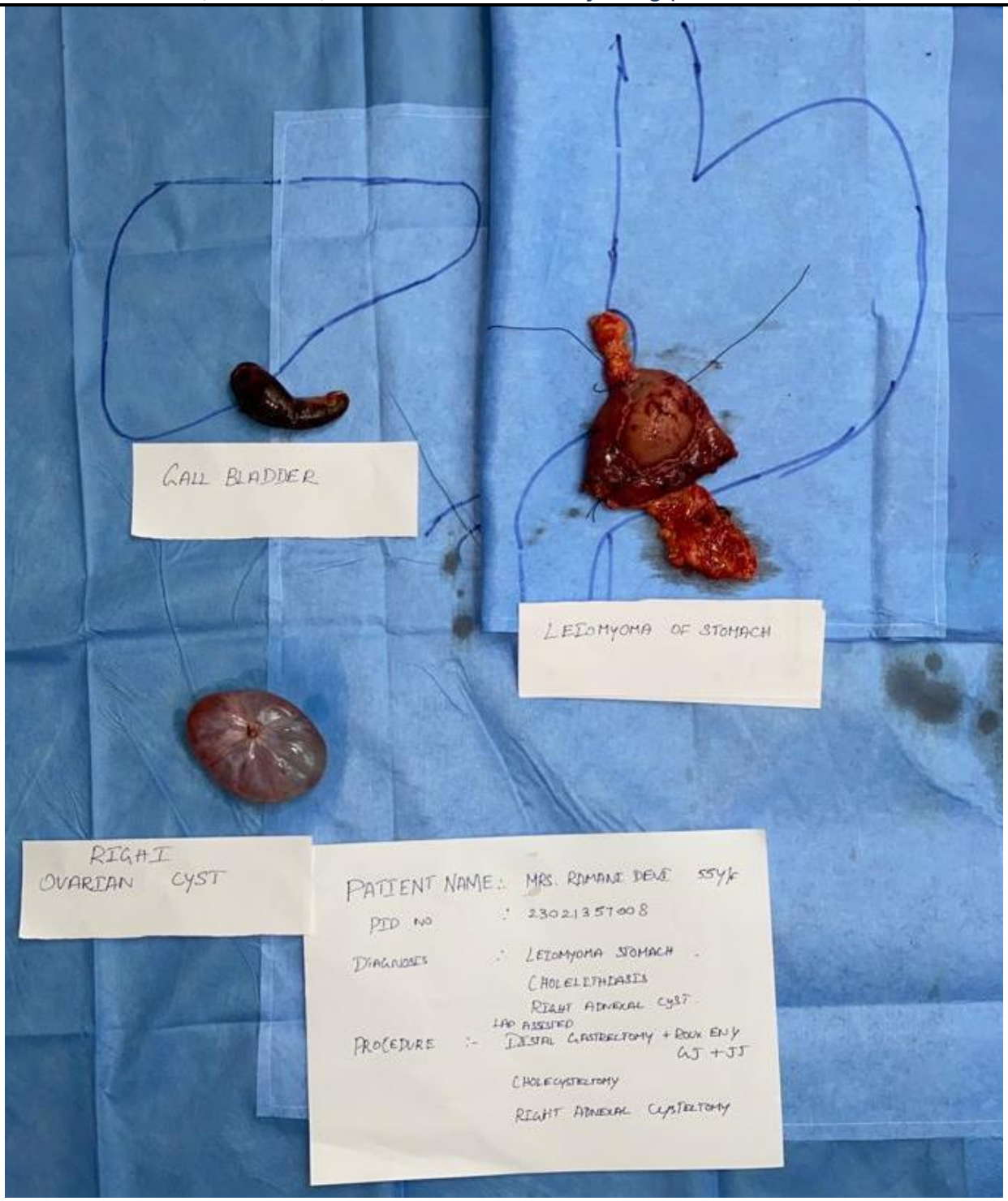

Figure 2: Gross appearance of Tumor, Right adnexal cyst and gall bladder

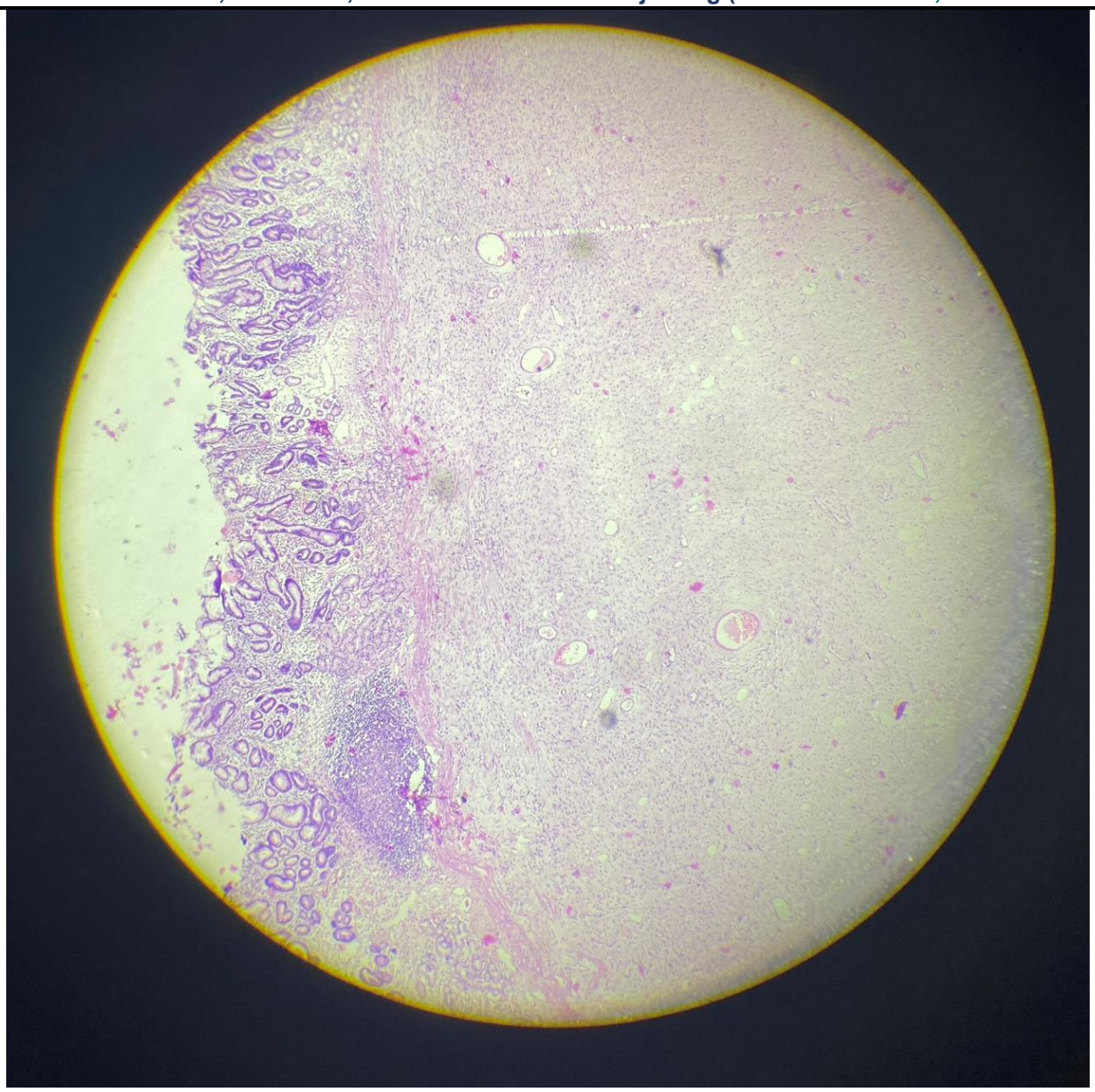

Figure 3: HPE showing fibromyxoid stroma and inflammatory infiltrates

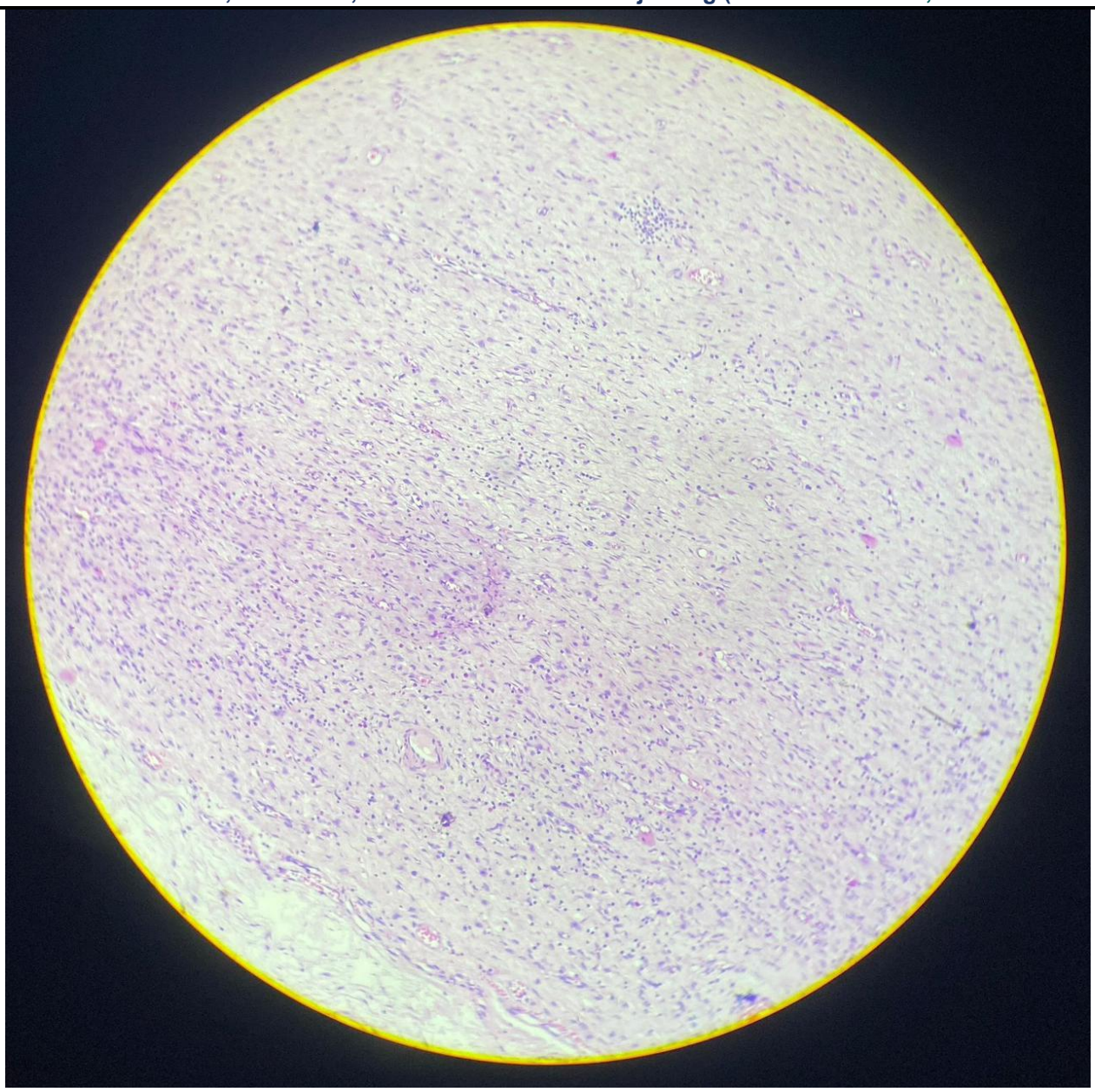

Fig. 4 – HPE showing spindle shaped cells and inflammatory cells with eosinophilic predominence