

## Case Report

# Gastrointestinal Stromal Tumors: A Rare Presentation with Upper GI Bleeding.

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## ABSTRACT

A rare presentation of gastrointestinal stromal tumor is reported in a 49yr old known dyspeptic who presented with features of upper GI bleeding and upper abdominal pain.

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## INTRODUCTION

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Gastrointestinal stromal tumors (GISTs) were originally thought to have originated from the mesenchymal cells of the gastrointestinal tract.<sup>1,2</sup> However, these tumors actually originate from the interstitial cells of cajal.<sup>3</sup> These tumors express CD117 antigen(C-kit), a gain of function mutation responsible for activating the growth of this tumor.<sup>4</sup> Most GISTs are discovered incidentally so the true prevalence is unknown.

GISTs are rare, accounting for 1% to 2% of gastrointestinal neoplasms.<sup>5</sup> Soreide and colleagues reviewed 29 studies consisting of 13,550 patients from 19 different countries with GISTs between January 2000 and December 2014.<sup>6</sup> The median age was 65years(range10-100) with a 1:1 male to female ratio. The highest incidence rates(19-22 per million per year) were noted in Hong Kong, Shanghai, Taiwan and Norway. The lowest incidence was noted in the Shanxi province of China with 4.3 per million per year. Eighteen percent(range, 5-40%) of GISTs were discovered incidentally. GISTs were found in the stomach(56%), small bowel(32%), colon and rectum(6%), oesophagus(0.7%) and other locations(5.5%).<sup>6</sup>

About 10% to 30% of GISTs progress to malignancy. GISTs occurring outside of the stomach are associated with higher malignant potential<sup>7</sup>.

Hartley and colleagues in Pretoria, South Africa reported about 54 cases of GISTs between year 2000 to 2009<sup>8</sup> AderemiOluyemi and colleagues reported a case of gastrointestinal stromal tumor of the anal wall in an elderly man following a

colonoscopy done in Lagos, Nigeria.<sup>9</sup>

GISTs present asymptotically in 18% of cases especially in cases of smaller tumors of the intestinal tract.<sup>6,10</sup> These tumors are usually found incidentally on abdominal CT scans, during endoscopy, or during surgical procedures for other manifestations. Symptomatic patients may present with nonspecific symptoms of nausea, vomiting, abdominal distention, early satiety, abdominal pain and rarely as a palpable abdominal mass.<sup>10</sup> Larger tumors may cause obstruction of the gastrointestinal lumen by endophytic growth or compression of the GIT from exophytic growth leading to dysphagia, obstructive jaundice or constipation, depending on the location of the mass. Perforated neoplasms will present with signs of peritonitis or gastrointestinal bleeding, indolent or massive intraperitoneal bleeding is secondary to pressure necrosis and ulceration.<sup>(11,12)</sup>

## CASE REPORT

Mr AG is a 49-year old roadside mechanic who presented at the gastroenterology clinic of the Jos University Teaching Hospital (JUTH) in February 2021 with complaints of recurrent upper abdominal pain, vomiting of blood and passage of dark tarry stool of 15 months duration. Upper abdominal pain was burning in nature and radiates to the back, with no known relieving or aggravating factors. There was no weight loss, jaundice, abdominal swelling, bleeding from any other part of the body. He had significant alcohol ingestion but stopped 2 years prior to presentation. Also a known dyspeptic and has had recurrent blood transfusion on account of symptoms. No history of use of NSAIDs, steroids, anticoagulants or traditional medications. Not a known diabetic or hypertensive. On examination, he was pale, afebrile (36.0c), anicteric, no stigmata of chronic liver disease. His abdomen was full, moved with respiration, with epigastric tenderness, organs not palpable, no palpable mass, no ascites. A digital

rectal examination revealed gloved finger stained with melaena. Results of investigations done:

Viral serologies (Hep B surface antigen, Anti HCV and RVS): Non-reactive, Abd USS: The liver, spleen, pancreas and gall bladder are normal in size, outline and echotexture.

FBC: PCV-18%

WBC-7500

N-70%

L-27%

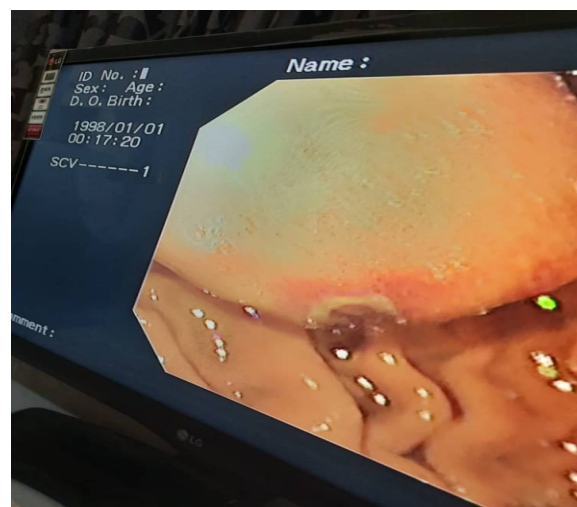
M-1%

E-1%

B-1%

PLT-313000

Microcytic hypochromic anemia. Serum electrolytes, urea and creatinine- within normal limits, Liver Function Tests- within normal limits

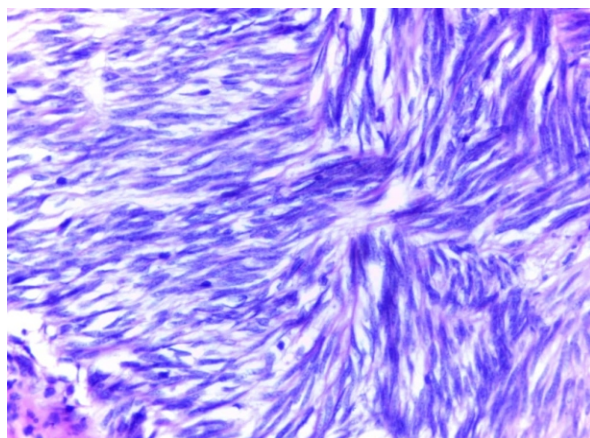


**Fig. 1: Upper GI endoscopy done: normal esophagus and GEJ, there's a globular mass in the fundus of the stomach with hyperemia and ulceration on its lateral surface. Normal 1<sup>st</sup> and 2<sup>nd</sup> part of the duodenum.**

A diagnosis of upper GI bleeding secondary to a fundal mass (?GIST), he was optimized and subsequently had surgery where the mass was removed and sent for histology.

Histologic sections shows sheets of spindle cells with spindle shaped nuclei having a Para nuclear halo with dense eosinophilic cytoplasm. These cells are seen to be coursing and interlacing in all directions. Overlying the above cells is a foveolar type epithelium with gastric glands within the lamina propria. No atypical features.

Patient did well after the surgery and was discharged 5 days after surgery.



**Fig. 2:** An impression of gastrointestinal stromal tumor was made.

## DISCUSSION

Gastrointestinal stromal tumors can present with upper GI bleeding with epigastric pain, mimicking a peptic ulcer and most times patients are managed as peptic ulcer disease as in this case, this is due to the inability to do relevant investigations as at when due, because of out of pocket payment for health services in most of the developing countries. GISTs in this patient was an incidental finding which accounts for 18% of the population (range of 5-40%).<sup>6</sup>

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