

EDITORIAL

DOI:

<https://doi.org/10.5281/zenodo.19398727>

Volume 1 Issue 2
July 2026

*Corresponding author
Monika
Nardzewska-Szczepanik

Submitted 31 March 2026

Accepted 26 April 2026

Published 01 July 2026

Citation
Monika Nardzewska-
Szczepanik. Department
of Diagnostic Imaging,
Rydygier Hospital,
Krakow, Poland, Vol 1:
Iss 2, 2026.

The article was
originally submitted in
ENGLISH.

Translations into other
languages were
reviewed and validated
by the authors and the
editorial team.

Nevertheless, for the
most accurate
representation of the
subject matter, readers
are encouraged to
consult the article in its
original language.

INTRAMURAL GASTRIC HEMATOMA IN PATIENT WITH PRIMARY THROMBOCYTOPENIA

Monika Nardzewska-Szczepanik ¹, Radoslaw Chmiel ²

¹ Department of Diagnostic Imaging, Rydygier Hospital, Krakow, Poland.

² III Department of Surgery, Jagiellonian University Medical College, Krakow, Poland.

Introduction:

Over the past three decades, abdominal surgery has undergone a profound transformation with the Intramural hematomas of the gastrointestinal tract are uncommon disorders. Most of them are localized either in the esophagus or in the duodenum. Stomach is the rarest localization. The hematomas can be spontaneous [1–5], due to coagulopathy [6–20], peptic ulcer disease [21–23], aneurysm [24–27], fish bone ingestion [28, 29], endoscopy procedures [30–36] and others causes, such as amyloidosis [37–39], pancreatitis [40], Ehlers-Danlos Syndrome [41], splenic rupture [42], after splenectomy for idiopathic thrombocytopenic purpura [43] or due to Ivor Lewis operation [44], and repeated vomiting [9]. Submucosal vessels are the source of bleeding which causes dissection of the submucosa membrane from the muscularis propria. Most of the cases are treated conservatively, surgery is reserved for hematomas which are secondary to structural abnormalities of the gastric wall or gastric blood vessels or in case of bleeding of unknown origin and concomitant perforation or gastric outlet obstruction. We present the second case report in the literature of patient who developed intramural gastric hematoma due to primary thrombocytopenia.

Case Report:

A 46 year old male, treated since 2011 because of the immunologic primary thrombocytopenia. Due to insufficiency of conservative therapy in 2015 the laparoscopic splenectomy was conducted which caused transient normalization of platelet level. In July 2016 scintigraphy performed due to recurrent thrombocytopenia revealed a suspicion of additional spleen or splenosis and subsequent CT and MRI (Figure 1A, 1B). The patient was reoperated with an open approach, and the remnant splenic tissue was removed. This resulted in the platelet level increase to 100 000/mm³. In December 2016, the patient had an upper airways infection which caused the drop of platelets level to 10 000/mm³. In January 2017, the patient was admitted to the local hospital, but with symptoms of upper abdominal pain and partial gastric outlet obstruction. The CT showed soft tissue masses inside the stomach without contrast enhancement. Also the acute pancreatitis was suspected. In the endoscopic examination the compression of the stomach from the outside was described with very narrow lumen of the stomach. No mucosal lesions were reported.

These findings could also be the result of the huge intramural mass. The MRI examination was performed, which diagnosed large intramural hematoma (Figure 2). The multidisciplinary team decided the conservative treatment. The patient was stable and responded well to the treatment. The lesion was followed up with repeated MRI (Figure 3A, 3B). In the MRI examination performed after 9 months only a 2cm remnant of the hematoma was reported. The patient had no symptoms.



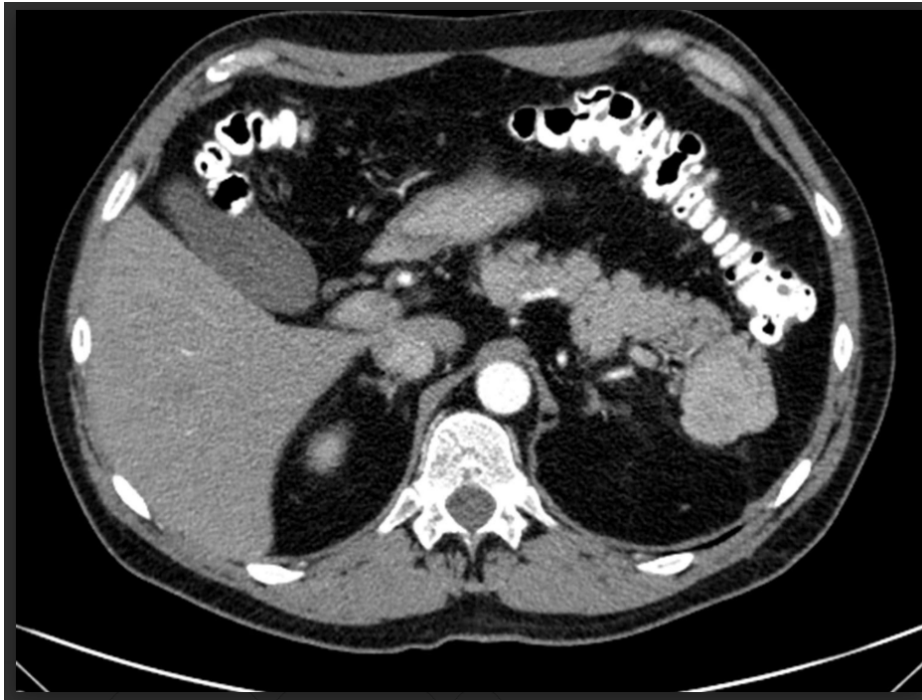


Figure 1A – CT scan from August 2016

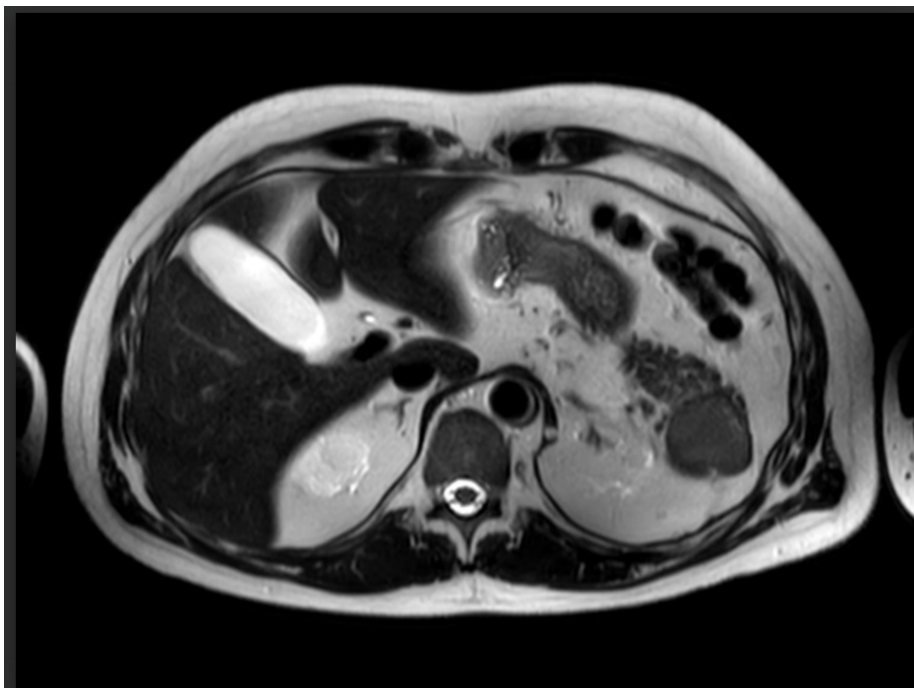


Figure 1B – MRI scan from August 2016

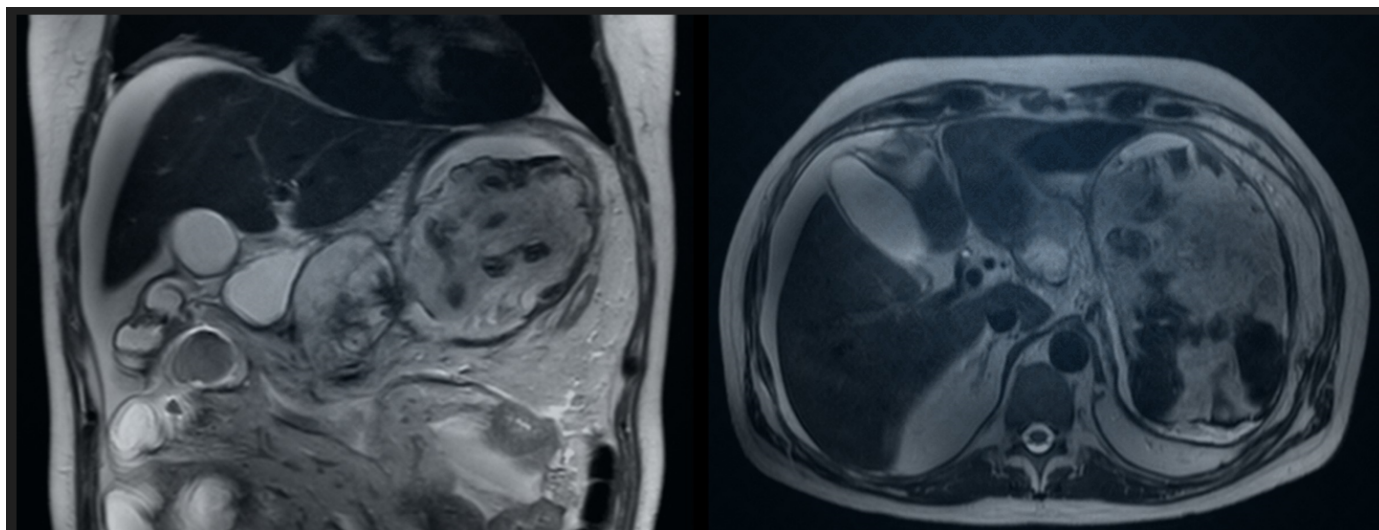


Figure 2 - MRI examination from January 2017

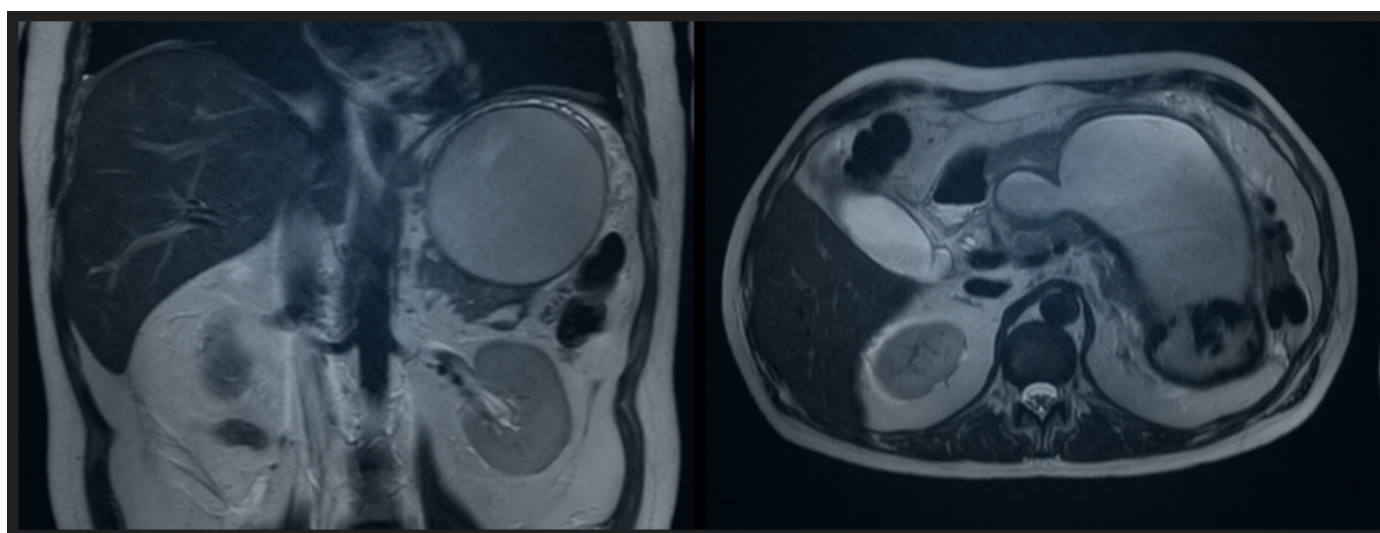


Figure 3A – MRI examination from February 2017

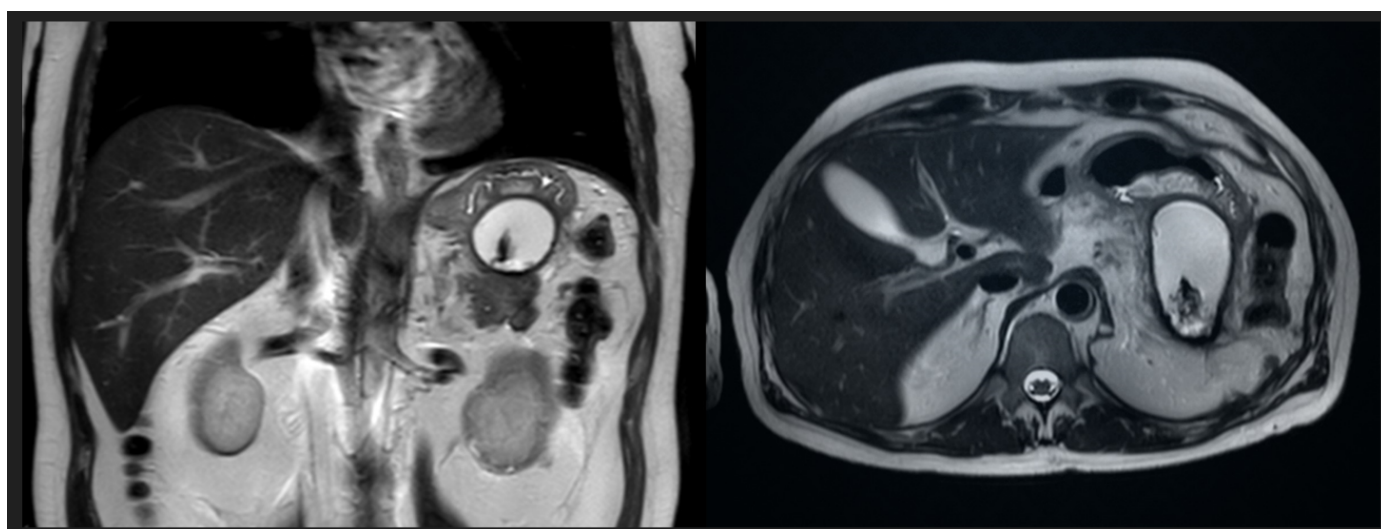


Figure 3B- MRI examination from March 2017

Discussion:

To our knowledge this is the second case of intramural gastric hematoma associated with primary thrombocytopenia.

Intramural hematomas of the GI tract have been described in the esophagus, stomach, small bowel, and colon. The most frequent localization is the duodenum, where over 130 cases were noticed by a literature, the second most common localization is the esophagus with over 79 cases [45] and finally 48 cases involving stomach including this case. It is suggested that the most common etiology of gastric hematoma is coagulopathy including anticoagulation with or without peptic ulcer disease [6–16, 45] then hemophilia [7, 17–19] and myelofibrosis [20].

Other causes are peptic ulcer disease [21–23], vascular aneurysms [24–27], fish bone ingestion [28, 29] or as a complication of endoscopy procedure [30–36], spontaneous and idiopathic cases [1–5], amyloidosis [37–39], pancreatitis [40], Ehlers-Danlos syndrome [41], splenic rupture [42], after splenectomy for idiopathic thrombocytopenic purpura [43], after Ivor Lewis operation due to esophagus cancer [44] and repeated vomiting [9].

Intramural gastric hematoma can be accompanied by hematemesis, nausea, vomiting and epigastric pain that can simulate acute coronary syndrome [11].

Diagnostics:

CT is the diagnostic procedure of choice in intramural hematomas of GI tract at all. Hematoma of the GI tract may be described as well-circumscribed, high –density homogenous masses, lacking signs of calcification and infiltration in other organs [11]. Also MRI, like in this case, can be used to detect gastric intramural hematoma.

Treatment:

There is no standard therapy, nevertheless most of all cases can be managed conservatively with blood transfusion and blood clotting normalization [11].

If the conservative treatment fails it is necessary to use endoscopy or arterial embolization or percutaneous drainage or surgery to achieve hemostasis [45]. It is also possible to perform endoscopic incision and drainage by using a needle-knife which is safe and effective method [2]. Surgical treatment including total gastrectomy are especially indicated in hematoma with substantial bleeding and if hematoma tends to expand [11]. Surgery can be a treatment of choice in patients with hematomas which are difficult to distinguish from intramural tumors such as GIST.

Conclusion:

In spite of rareness of the gastric hematoma, such diagnosis should be considered if the patient is in group of risk together with positive clinical symptoms and positive results of imaging and endoscopy examination. Proper diagnosis is important because most of the patients with idiopathic gastric hematomas were misdiagnosed to have gastric tumors. Those patients were given unnecessary gastrectomies because diagnoses were revealed after the surgery[45].

References

1. Hui J, AhChong AK, Mak KL, et al. Spontaneous Intramural Hematoma of Stomach. *Dig Surg* 2000; 17: 524–527.
2. Rothstein JD, Sandusky WR, Keats TE. Hematoma as a Cause of Radiographic Deformity of Stomach. *Radiology* 1968; 90: 116–117.
3. Costa BP, Manso C, Baldaia C, et al. Gastric pseudotumor. *Hepatogastroenterology* 2000; 47: 151–4.
4. Rajagopal K V, Alvares JF. Spontaneous giant intramural hematoma of esophagus and stomach. *Indian J Gastroenterol* 2005; 24: 88.
5. OE S, WATANABE T, KUME K, et al. A Case of Idiopathic Gastroesophageal Submucosal Hematoma and Its Disappearance Observed by Endoscopy. *J UOEH* 2014; 36: 123–128.
6. Hughes CE, Conn J, Sherman JO. Intramural hematoma of the gastrointestinal tract. *The American Journal of Surgery* 1977; 133: 276–279.
7. Felson B. Intramural gastric lesion with sudden abdominal pain. *JAMA: The Journal of the American Medical Association* 1974; 230: 603–604.
8. Durward QJ, Cohen MM, Naiman SC. Intramural hematoma of the gastric cardia. *Am J Gastroenterol* 1979; 71: 301–5.
9. IMAIZUMI H, MITSUHASHI T, HIRATA M, et al. A Giant Intramural Gastric Hematoma Successfully Treated by Transcatheter Arterial Embolization. *Internal Medicine* 2000; 39: 231–234.

10. Leborgne L, Mathiron A, Jarry G. Spontaneous intramural gastric haematoma as a complication of oral anticoagulant therapy mimicking acute myocardial infarction. *Eur Heart J* 2007; 28: 1804–1804.
11. Félix RH de M, Galvão BVT, Góis AFT. Warfarin-induced gastric intramural hematoma. *Rev Assoc Med Bras* 2014; 60: 16–17.
12. Dhawan V, Mohamed A, Fedorak RN. Gastric Intramural Hematoma: A Case Report and Literature Review. *Canadian Journal of Gastroenterology* 2009; 23: 19–22.
13. González Rodríguez FJ, Domínguez Comesaña E, Portela Serra JL, et al. Hematoma gigante esófago-gástrico. *Cir Esp* 2013; 91: e25.
14. Hurtado Doce AI, Solla Buceta MA, Galeiras Vázquez RM. Spontaneous intramural gastric haematoma in an anticoagulated patient. *Revista Española de Enfermedades Digestivas* 2011; 103: 496–496.
15. Dibuz M, Szabó T, Monoki E, et al. [Gastric and duodenal intramural hematoma: report of two cases]. *Orv Hetil* 1998; 139: 2963.
16. Maimon N, Penner T, Demajo W. Warfarin-induced gastric bleeding and intestinal obstruction. *Eur J Intern Med* 2006; 17: 211–212.
17. Griffin PH, Schnure FW, Chopra S, et al. Intramural Gastrointestinal Hemorrhage. *J Clin Gastroenterol* 1986; 8: 389.
18. Morimoto K, Hashimoto T, Choi S, et al. Ultrasonographic evaluation of intramural gastric and duodenal hematoma in hemophiliacs. *Journal of Clinical Ultrasound* 1988; 16: 108–113.
19. Wright FW, Matthews JM. Hemophilic Pseudotumor of the Stomach. *Radiology* 1971; 98: 547–549.
20. Melato M, Falconieri G, Manconi R, et al. Intramural gastric hematoma and hemoperitoneum occurring in a patient affected by idiopathic myelofibrosis. *Hum Pathol* 1980; 11: 301–302.
21. Sheward SE, Davis M, Amparo EG, et al. Intramural hemorrhage simulating gastric neoplasm. *Gastrointest Radiol* 1988; 13: 102–104.
22. Ng S, Shariff M, Datta D, et al. Gastrointestinal: Gastric wall hematoma. *J Gastroenterol Hepatol* 2006; 21: 915–915.
23. Horvát G, Szele K, Panka L, et al. [Rare complication of duodenal ulcer: intramural hematoma in the gastric antrum]. *Orv Hetil* 1998; 139: 1799–802.
24. Langlois NE, Miller ID. Intramural gastric hematoma originating from an atherosclerotic aneurysm of a gastric artery. *Am J Gastroenterol* 1993; 88: 613–4.
25. Obata S, Yamaguchi S, Ishii T, et al. Ruptured Aneurysm of the Visceral Artery: Report of Two Cases. *Surg Today* 2001; 31: 660–664.
26. Molnár P, Mikó T. Multiple arterial caliber persistence resulting in hematomas and fatal rupture of the gastric wall. *Am J Surg Pathol* 1982; 6: 83–86.
27. Nishiyama S, Zhu B-L, Quan L, et al. Unexpected sudden death due to a spontaneous rupture of a gastric dissecting aneurysm: an autopsy case suggesting the importance of the double-rupture phenomenon. *J Clin Forensic Med* 2004; 11: 268–270.
28. Koike J, Matsushima M, Teraoka H, et al. A case of submucosal hematoma of the esophagus and stomach, possibly caused by fish bone ingestion. *Tokai J Exp Clin Med* 2010; 35: 46–56.
29. Elliott S, Bruce J. Submucosal gastric haematoma: a case report and review of the literature. *Br J Radiol* 1987; 60: 1132–1135.
30. Sollfrank M, Koch W, Waldner H, et al. Intramurales Duodenalhämatom nach endoskopischer Biopsie. *RöFo - Fortschritte auf dem Gebiet der Röntgenstrahlen und der bildgebenden Verfahren* 2001; 173: 157–159.
31. SUGAI K, KAJIWARA E, MOCHIZUKI Y, et al. Intramural Duodenal Hematoma after Endoscopic Therapy for a Bleeding Duodenal Ulcer in a Patient with Liver Cirrhosis. *Internal Medicine* 2005; 44: 954–957.
32. Sun P, Tan S-Y, Liao G-H. Gastric intramural hematoma accompanied by severe epigastric pain and hematemesis after endoscopic mucosal resection. *World J Gastroenterol* 2012; 18: 7127–7130.
33. Sadio A, Peixoto P, Cancela E, et al. Intramural hematoma: a rare complication of endoscopic injection therapy for bleeding peptic ulcers. *Endoscopy* 2011; 43: E141–E142.
34. Itaba S, Kaku T, Minoda Y, et al. Gastric intramural hematoma caused by endoscopic ultrasound-guided fine-needle biopsy. *Endoscopy* 2014; 46: E666–E666.
35. Keum B, Chun HJ, Seok Seo Y, et al. Gastric intramural hematoma caused by argon plasma coagulation: treated with endoscopic incision and drainage (with videos). *Gastrointest Endosc* 2012; 75: 918–919.
36. Yang C, Yen H. Large gastric intramural hematoma: unusual complication of endoscopic submucosal dissection. *Endoscopy* 2011; 43: E240–E240.
37. IJIMA-DOHI N, SHINJI A, SHIMIZU T, et al. Recurrent Gastric Hemorrhaging with Large Submucosal Hematomas in a Patient with Primary AL Systemic Amyloidosis: Endoscopic and Histopathological Findings. *Internal Medicine* 2004; 43: 468–472.
38. Muraki M, Kanno Y, Higuchi K, et al. Laceration of gastric mucosa associated with dialysis-related amyloidosis. *Clin Nephrol* 2005; 64: 448–451.

39. Yeh Y, Lin C, Huang S, et al. Gastrointestinal: Gastric hematoma with bleeding in a patient with primary amyloidosis. *J Gastroenterol Hepatol* 2014; 29: 419–419.
40. Chou C, Chen R, Yang AD. Gastric Subserosal Hematoma Developing from Focal Pancreatitis: A Case Report. *Kaohsiung J Med Sci* 2009; 25: 45–48.
41. Kobayashi Y, Kuwabara A, Okamoto H, et al. Gastric Submucosal Hematoma and Mucosal Rupture with Ehlers-Danlos Syndrome : A Case Report. *Acta Med Biol (Niigata)* 2006; 54: 59–62.
42. LLOYD T V., JOHNSON JC. Intramural Gastric Hematoma Secondary to Splenic Rupture. *South Med J* 1980; 73: 1675.
43. Kami M, Matsukura A, Kanda Y, et al. Intramural hematoma of stomach after splenectomy for idiopathic thrombocytopenic purpura. *Haematologica* 1999; 84: 669–71.
44. Cho S, Kim JW, Lee H, et al. Intramural Hematoma of Gastric Tube After Ivor Lewis Operation. *Ann Thorac Surg* 2010; 89: 2016–2017.
45. Ng SNHN, Tan HJ, Keh CHL. A belly of blood. *Int J Surg Case Rep* 2016; 26: 65–68.