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Travis Magdaleno MD

*Lehigh Valley Health Network*, [travis.magdaleno@lvhn.org](mailto:travis.magdaleno@lvhn.org)

Anam Malik MD

*Lehigh Valley Health Network*, [Anam.Malik@lvhn.org](mailto:Anam.Malik@lvhn.org)

She-Yan Wong MD

*Lehigh Valley Health Network*, [She-Yan.Wong@lvhn.org](mailto:She-Yan.Wong@lvhn.org)

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# Successful Treatment of Splenic Vein Thrombosis Induced Gastric Varices During Pregnancy

Travis Magdaleno, DO, Anam Malik, MD, She-Yan Wong, MD  
Department of Gastroenterology, Lehigh Valley Health Network, Allentown PA

## INTRODUCTION

- Essential thrombocythemia (ET) is a type of myeloproliferative hematologic neoplasm which is characterized by excess platelet production.<sup>1</sup>
- Thrombosis of the portal venous system has been a well-established complication of ET and can induce life-threatening situations.
- In pregnant females, ET alone has been associated with higher rates of fetal demise with limited options.<sup>1</sup>
- We present a unique case in which a 28-week pregnant female with a history of ET complicated by splenic vein thrombosis was successfully treated for life-threatening bleeding gastric varices.

## CASE PRESENTATION

- A 28-week pregnant, 38-year-old female with a medical history significant for ET with known splenic vein thrombosis with marked splenomegaly (on ASA therapy), and a history of prior obstetric complications (IUGR, HELLP Syndrome) who presented with melena x 3 days.
- Admission vitals were notable for tachycardia. Labs revealed a hemoglobin of 7.5g/dL (12-14g/dL pre-pregnancy), platelet count of 174, INR 1.1. Liver function panel appeared normal. Coffee-ground emesis was noted in the emergency department which progressed to frank hematemesis.
- Following stabilization, and multidisciplinary discussions, an urgent EGD was performed noting medium-sized gastric varices with stigmata of recent bleeding (Figure 1). Additional findings of small esophageal varices were noted.
- An MRI of her abdomen noted marked splenomegaly with a chronic-appearing splenic vein thrombosis with multiple collateral vessels (Figure 2).
- BRT0 was deemed unfeasible due to absence of a significant portosystemic shunt by Interventional Radiology. However, after discussion with surgery, splenic artery embolization followed by open splenectomy was successfully performed.

- No complications were encountered, nor further episodes of GI bleeding post-operatively.
- Pathology reported a massive congested spleen weighing 879g (average 140g [40-300g] for females).
- Patient delivered a healthy baby girl at 37 weeks gestation via C-section.

## DISCUSSION

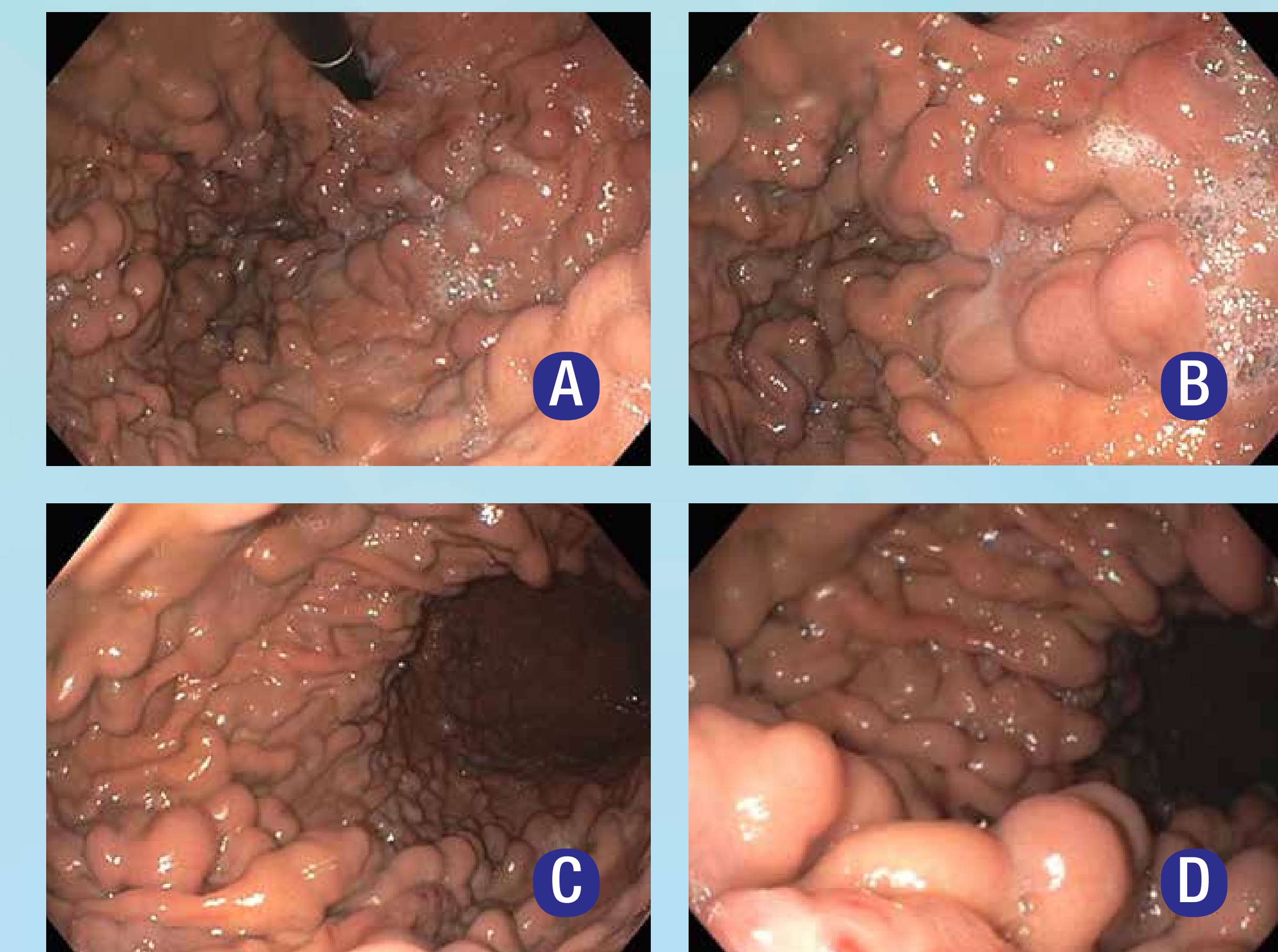
- Porto-systemic thrombotic events have been a well-established complication in patients with essential thrombocytosis.
- Thrombosis of the splenic vein in particular, can progress to the formation of large gastric varices which can cause life-threatening bleeding.
- Splenectomy has been referred as the treatment of choice in these situations however it's role in pregnancy is not well established.<sup>2</sup>
- Previously considered a very high-risk procedure, given advancement in medical and neo-natal care, splenectomy during pregnancy outcomes have improved over the recent decades.<sup>3</sup>
- We present a successful case in which an open splenectomy w/ arterial embolization was successfully performed in pregnant patient in her 3rd trimester.
- This procedure should be considered for definitive treatment for pregnant females in similar situations after thorough multidisciplinary discussions.

## REFERENCES

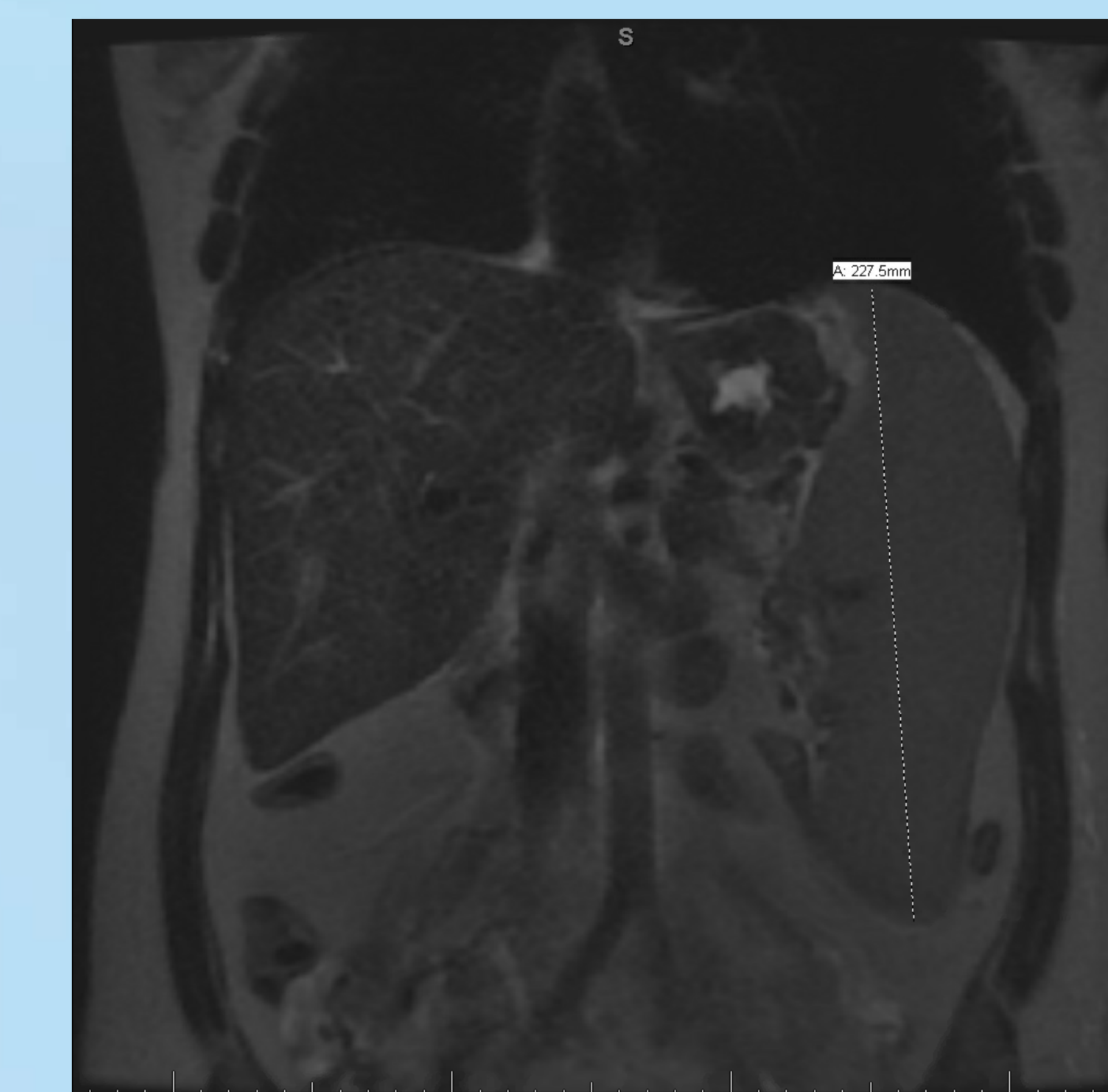
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**Figure 1.** Endoscopic images of gastric varices. Image A & B are in retroflexed view of the cardia and fundus. Images C & D are in forward facing view of the proximal body. Red wale sign noted in Image D.



**Figure 2.** MRI of abdomen and pelvis in coronal view noting massive splenomegaly measuring 22.75cm crainocaudad.