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# "Complex Presentation: Plummer-Wilson Syndrome Unveiling Severe Anemia and Right Heart Failure in a Hypertensive Patient"

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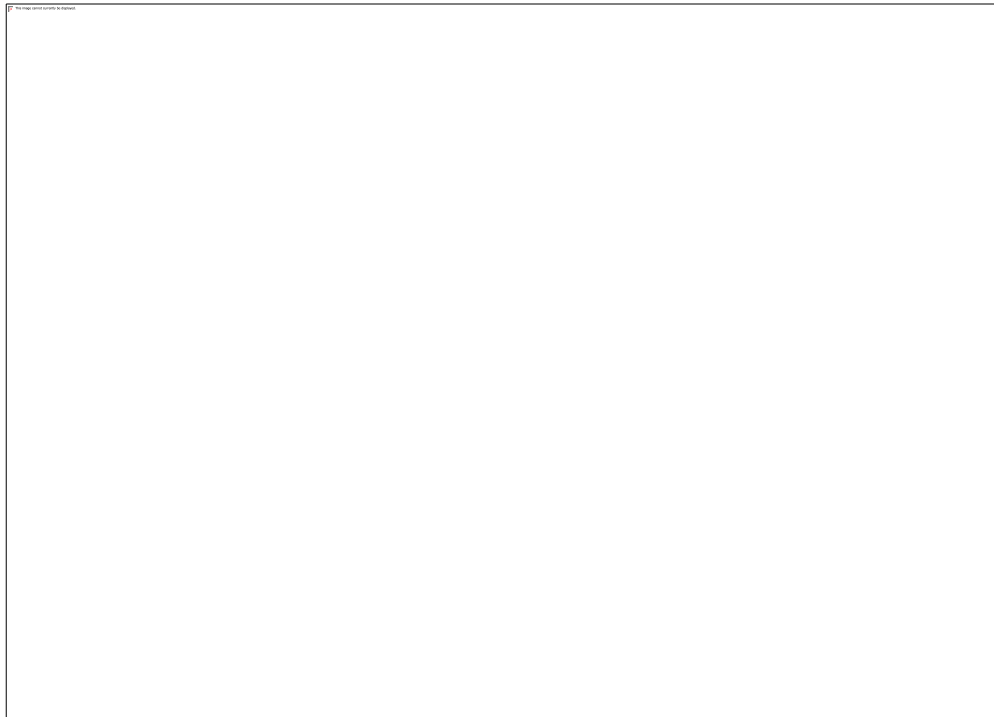
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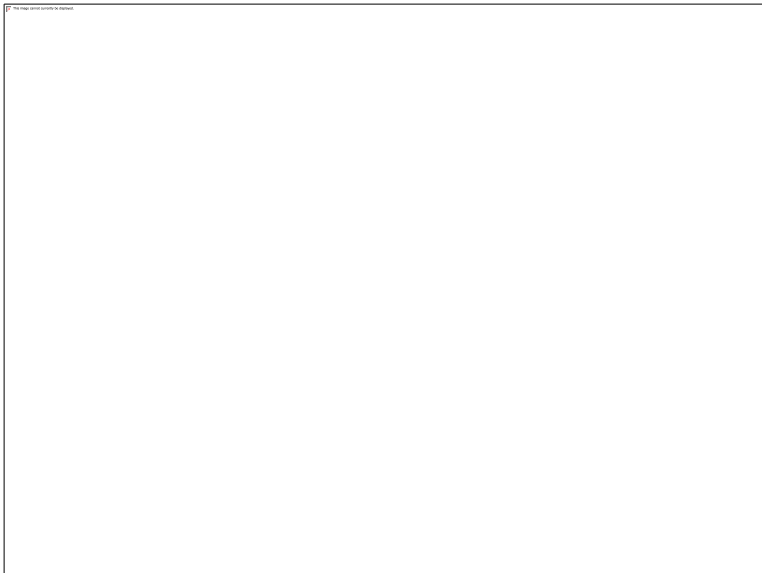
### ABSTRACT :

This case report describes an 83-year-old male presenting with a two-month history of epigastric pain, recurrent constipation, and significant anemia. The patient also reported bilateral foot swelling, facial puffiness, and scrotal edema. Laboratory findings revealed decreased hemoglobin and vitamin D levels, while ultrasound showed dilated inferior vena cava and hepatic veins. These clinical manifestations suggest a complex interplay of gastrointestinal, hematologic, and cardiovascular pathologies, warranting interdisciplinary collaboration for accurate diagnosis and comprehensive management. This case underscores the importance of thorough evaluation and integrated care in addressing multifaceted clinical presentations.

KEYWORDS: VITAMIN D, SWELLING

**CASE REPORT:** An 83-year-old male presented at the emergency department with chief complaints of epigastric pain persisting for two months and constipation for the past ten days. He was previously asymptomatic five years ago before the onset of the burning epigastric pain, which is accompanied by abdominal discomfort and belching during episodes. Pain relief is achieved with medication, but recurrence every 3-4 months is noted, exacerbated by spicy foods. Additionally, he reports a history of bilateral foot swelling for four months, facial puffiness for two months, and right-sided scrotal swelling for one month. Laboratory results indicate a decrease in hemoglobin to 6.0 g/dL and vitamin D3 levels to 16.3 ng/mL. Ultrasound findings reveal a dilated inferior vena cava (IVC) and hepatic veins.







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## **INTRODUCTION:**

A condition characterized by iron deficiency anemia and the development of webs of membranes in the throat, leading to swallowing difficulties. Having Plummer-Vinson syndrome may elevate the risk of esophageal cancer. This condition is also known as Paterson-Kelly syndrome and sideropenic dysphagia.<sup>1</sup>

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## **INCIDENCE :**

Accurate epidemiological data regarding the syndrome's prevalence are lacking, indicating its extreme rarity. The majority of affected individuals are white women in their middle-aged years, typically ranging from the fourth to seventh decade of life. However, occurrences of the syndrome have also been documented in children and adolescents.<sup>2</sup>

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## **SIGNS & SYMPTOMS :**

The primary clinical manifestations of Plummer-Vinson syndrome include dysphagia, upper esophageal webs, and iron deficiency anemia. This condition predominantly affects middle-aged white women, typically between the fourth and seventh decades of life<sup>3,4</sup>. However, the syndrome has also been observed in pediatric and adolescent populations.<sup>5-7</sup>

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## **RISK FACTORS:**

Though findings are not always consistent, individuals with Plummer-Vinson syndrome appear to have a heightened susceptibility to hypopharyngeal and esophageal squamous cell carcinomas. In Swedish women during the 1930s and 1940s, a notable prevalence of hypopharyngeal cancers was linked to Plummer-Vinson syndrome. The reported incidence of postcricoid carcinoma associated with Plummer-Vinson syndrome ranges between 4% to 16% in older studies and continues to be a topic of discussion.<sup>8</sup>

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## **DISCUSSION :**

This case presentation suggests a complex clinical picture possibly indicative of underlying systemic issues. The combination of chronic epigastric pain, recurrent constipation, and significant anemia raises concerns for gastrointestinal pathology, potentially aggravated by nutritional deficiencies such as vitamin D. The presence of bilateral foot swelling, facial puffiness, and scrotal edema raises suspicion for systemic fluid retention, possibly indicating cardiac or renal involvement. The ultrasound findings of dilated inferior vena cava and hepatic veins suggest venous congestion,

implicating right heart dysfunction. This constellation of symptoms warrants a thorough investigation to elucidate the underlying etiology, possibly involving gastrointestinal, hematologic, and cardiovascular specialists for comprehensive management.

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## CONCLUSION :

In conclusion, the presented case highlights a constellation of symptoms suggestive of underlying gastrointestinal, hematologic, and cardiovascular involvement. Further investigations and interdisciplinary collaboration are essential for accurate diagnosis and comprehensive management of the patient's condition, aiming to address both symptomatic relief and underlying pathologies effectively.

Statement of Ethics: An informed consent form was taken from the patient

Conflict of Interest: The authors declared no conflicts of interest

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## REFERENCE :

1. <https://www.cancer.gov/publications/dictionaries/cancer-terms/def/plummer-vinson-syndrome>
2. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1586011/#:~:text=Exact%20data%20about%20epidemiology%20of,described%20in%20children%20and%20adolescents>
3. Wynder EL, Hultberg S, Jacobsson F, Bross IJ. Environmental factors in cancer of the upper alimentary tract. A Swedish study with special reference to Plummer-Vinson (Paterson-Kelly) syndrome. *Cancer*. 1957;10:470–482. Do
4. Hoffmann RM, Jaffe PE. Plummer-Vinson syndrome. A case report and literature review. *Arch Intern Med*. 1995;155:2008–111. doi: 10.1001/archinte.155.18.2008
5. Mansell NJ, Jani P, Bailey CM. Plummer-Vinson syndrome – a rare presentation in a child. *J Laryngol Otol*. 1999;113:475–476.
6. Anthony R, Sood S, Strachan DR, Fenwick JD. A case of Plummer-Vinson syndrome in childhood. *J Pediatr Surg*. 1999;34:1570–1572. doi: 10.1016/S0022-3468(99)90134-3
7. Lopez Rodriguez MJ, Robledo Andres P, Amarilla Jimenez A, Roncero Maillo M, Lopez Lafuente A, Arroyo Carrera I. Sideropenic dysphagia in an adolescent. *J Pediatr Gastroenterol Nutr*. 2002;34:87–90.
8. <https://emedicine.medscape.com/article/187341-overview?form=fpf#a2>