Plummer-Vinson syndrome in a black female

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Citation

A Uysal, S Arora, M Tapolyai. *Plummer-Vinson syndrome in a black female*. The Internet Journal of Gastroenterology. 2007 Volume 7 Number 1.

Abstract

Plummer-Vinson syndrome is a rare disorder that consists of
dysphagia, iron deficiency anemia and esophageal web. It tends to be rare in black population. It is also known to be a predisposing factor for upper alimentary cancers and even gastric cancer.
We report a 54 year old black female patient that presented with characteristic symptoms and signs of this rare syndrome. She had been complaining of dysphagia and also had evidence of iron deficiency anemia. Our suspicions were confirmed by a barium swallow study that showed an esophageal web.
She underwent an endoscopic work up that also showed an esophageal web and this led to a successful esophageal dilation procedure. Although Plummer-Vinson is rare in black population, we should still include this syndrome on our differential list for iron deficiency anemia.

INTRODUCTION

Plummer-Vinson syndrome consists of a triad of iron deficiency, anemia, dysphagia which usually improves after iron replacement and esophageal webbing [1] . It has been associated with increased risk of upper alimentary tract cancers [2] . It is rare in black population [3] . We report a black female who presented with the characteristic triad.

CASE REPORT

The patient is a 53 year old black female with no significant medical history. She presented with a one week history of progressive dysphagia with associated sore throat and voice changes. She initially was having difficulty swallowing solid foods which then progressed to swallowing difficulty with liquids. The patient also noted episodes of bright red blood per rectum in the past. She denied any melena and weight loss. Her only medication use was occasional use of naproxen.

Her vital signs were unremarkable. Her physical exam was unremarkable including a negative guaic exam.

Her laboratory findings revealed hemoglobin of 5.7 g/dl and MCV of 61.6 fl. Her ferritin levels were also low at 2.1 ng/ml. The patient's folate and vitamin b12 levels were also low at 5.8 ng/ml and 134 pg/ml respectively.

She was admitted for work up of hypochromic microcytic anemia and was given four units of packed red blood cells with clinical improvement. She was also given intravenous iron.

She subsequently underwent a barium swallow test which revealed persistent narrowing of esophagus at the levels of 6 th and 7 th cervical vertebrae as well as a small Zenker's diverticulum. (Figure 1a)

Figure 1

Figure 1: A Barium swallow showing Zenker's diverticulum

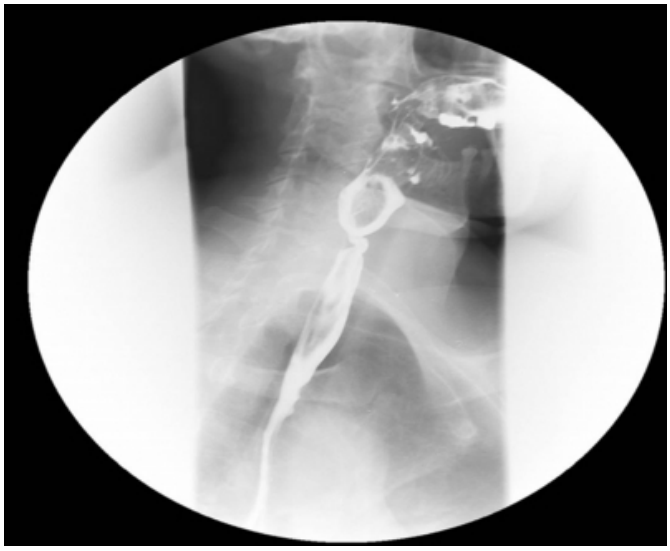
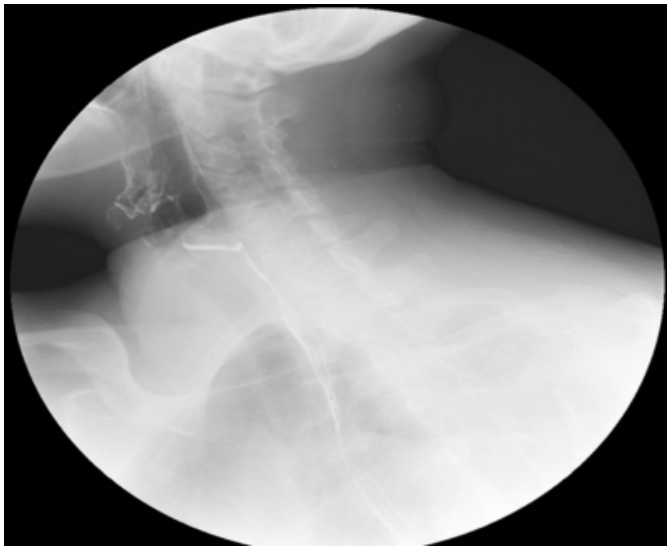


Figure 2

Figure 2: Images from the Barium swallow showing the area of Zenker's Diverticulum



Her upper endoscopy showed an upper esophageal stricture that was dilated with Maloney dilators.

The patient felt better after iron therapy, blood transfusion and endoscopic dilation.

DISCUSSION

The pathogenesis of Plummer-Vinson syndrome is not clear [2] .The main culprit is thought to be iron deficiency anemia [2] . This condition is also associated with development of esophageal cancer [2,3,4] . as well as rare incidence of gastric cancer [5] .

There have also been several case reports linking celiac disease to Plummer-Vinson syndrome [6,7] . We also advise clinicians to remember this rare association and work these patients up for celiac disease.

The treatment of this condition includes iron replacement, blood transfusions and endoscopic dilation techniques to remove webs. Surveillance follow up for development of upper alimentary tract cancers is also crucial.

It also tends to be rare in black population [3] . In a prior case study, Audrey et al. [3] described three Senegalese female patients with Plummer-Vinson syndrome.

Plummer-Vinson can present with a multitude of findings including dysphagia, iron deficiency anemia and esophageal web. Plummer-Vinson can be rare in black population therefore it can easily be overlooked. It is also crucial to follow up these patients since this condition is associated with gastrointestinal malignancy.

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References

1. Anderson SR, Sinacori JT. Plummer-Vinson syndrome heralded by postcricoid carcinoma. Am J Otolaryngol 2007; 28: 22-4.
2. Novacek G. Plummer-Vinson syndrome. Orphanet J Rare Dis 2006; 1: 36.3. Aubry P, Oddes B, Chazouilleres O, Lebourgeois M, Delanoue G, Seurat PL. Plummer-Vinson syndrome or related syndrome in 3 black African women. Ann Gastroenterol Hepatol (Paris) 1985; 21: 113-6.
3. Lightdale CJ, Winawer SJ. Screening diagnosis and staging of esophageal cancer. Semin Oncol 1984; 11: 101-12.
4. Kitabayashi K, Akiyama T, Tomita F, Saitoh H, Kosaka T, Kita I, et al. Gastric cancer occurring in a patient with Plummer-Vinson syndrome: report of a case. Surg Today 1998; 28: 1051-5.
5. Makharia GK, Nandi B, Garg PK, Tandon RK. Plummer Vinson syndrome: unusual features. Indian J Gastroenterol 2002; 21: 74-5.
6. Malhotra P, Kochhar R, Varma N, Kumari S, Jain S, Varma S. Paterson-Kelly
syndrome and celiac disease--a rare combination. Indian J Gastroenterol 2000;19: 191-2

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