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A CASE REPORT ON PLUMMER-VINSON SYNDROME

CH. Hari Prasanna, Sk.RahamThunisa, Dr. Gummalla Pitchaiah*

Department of Pharmacy Practice, QIS College of Pharmacy, Pondur Road,Vengamukkapalem, Ongole, Prakasam District, Andhra Pradesh, India – 523272.

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ABSTRACT

Plummer-Vinson syndrome is defined as a classic triad of dysphagia, iron-deficiency anaemia and upper oesophageal webs. In our case, an 18yr old female patient is presented to hospital with complaints of shortness of breath, fatigue, progressive dysphagia since 2 years, pain while swallowing solid foods and weight loss. She was found to be severe anaemic and endoscopy revealed oesophageal web. Anaemia was corrected with elemental iron and blood transfusions. Therefore, through better understanding of underlying anaemic condition, Plummer-Vinson syndrome can be identified in the earlier stages and can be treated appropriately while minimizing risk factors.

Corresponding author
Dr. Gummalla Pitchaiah
Department of Pharmacy Practice,
QIS College of Pharmacy, Pondur Road,
Vengamukkapalem, Ongole,
Andhra Pradesh, India-523272.

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INTRODUCTION

Plummer-Vinson syndrome (PVS) is also known as Patterson-Brown Kelly syndrome. The main clinical features are dysphagia, iron-deficiency anaemia and oesophageal webs. Henry Stanley Plummer and Porter Paisley Vinson first described and reported a few cases of Plummer-Vinson syndrome.Later, further explained by Ross Paterson and Brown Kelly.This syndrome has been known since 20th century and now has become rare because of the improved nutritional status, advancements in medical tools, treatment of disease & underlying etiology. It is mostly seen in middle age women [1]and rarely in children & adolescents. The disease usually presents with postcricoid dysphagia, upper oesophagel websand iron deficiency anemia.Symptoms from anemia include fatigue, pallor, glossitis, angular chelitis and koilonychia. Enlargement of thyroid and spleen may also be seen[2].It is a rare disease and has utmost importance because of its increased risk of squamous cell carcinoma of pharynx and oesophagus.

Case Report:

An 18-year-old female presented with the complaints of shortness of breath, fatigue, progressive dysphagia since 2 years, pain while swallowing solid foods. She weighs about 33kgs.On Physical examination, the blood pressure is 120/80mmHg, Pulse rate is 90 beats/min, respiratory rate is 20 cycles/min, temperature is 98 F. Patient has reported that she experiences heavy blood loss during menstruation every month. Her laboratory investigations showed haemoglobin level of 4.5 g/dl. Other biochemical parameters were normal. Her oesophagogastroscopy revealed pale mucosa and an oesophageal web in the upper portion of oesophagus. Other parts of the stomach mucosa appeared pale. Peripheral smear examination showed microcytic hypochromic RBC with anisopoikilocytosis. Based on the chief complaints, laboratory investigations the patient was diagnosed with Plummer-Vinson syndrome. She was then treated with oral elemental iron therapy daily, Tab.Albendazole 400mg OD. 2 Units of blood transfusion has also done. When reviewed after a month her haemoglobin was normal and no complaints of dysphagia were reported thereafter.

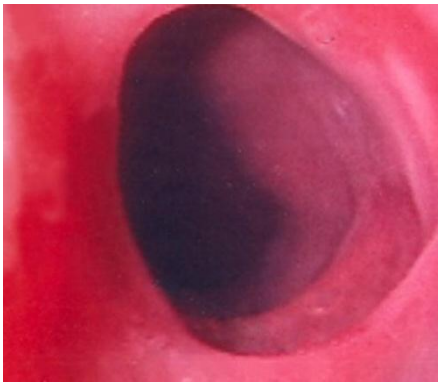

Fig. Upper esophageal web seen on gastrointestinal endoscopy.

Discussion:

Plummer-Vinson syndrome (PVS) is an extremely rare disease characterized by a triad of dysphagia, iron deficiency anaemia, post cricoidal webs. It is mostly seen in women aged 40-70 years although cases are reported in young adolescents as in our case. The dominating clinical feature in PVS is anaemia causing pallor, fatigue, and koilonychia.The exact pathogenesis of the syndrome is not yet completely understood. But to the known facts iron deficiency, autoimmune etiology, malnutrition and genetic causes were indicated. It has been noted that iron deficiency causes decrease in iron-dependant oxidative enzymes resulting in mucosal atrophy and results in the formation of webs[3]. Diagnosis is made based on the demonstration of oesophageal web by endoscopy or barium swallow studies[4].Management can be made with iron supplements and/or mechanical dilation of the web to relieve dysphagia[5].

CONCLUSION

Our case provides the awareness to look forpossibility of Plummer-Vinson syndrome in adolescents with dysphagia. Severe blood loss and hookworm infestation added with malnutrition hiked the incidence of PVS in our patient. Plummer-Vinson syndrome is a precancerous condition which can be prevented progressing to squamous cell carcinoma of pharynx by prior diagnosis and proper management.

ABBREVIATIONS:

PVS - Plummer-Vinson syndrome
RBC - Red Blood Cells
OD - Once in a day

Conflict of Interests:

The authors declare no conflict of interests.

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