

Upper Gastrointestinal System Bleeding Associated with Mallory-Weiss Syndrome in a Patient with Prosthetic Mitral Valve Using Warfarin Sodium

Warfarin Sodyum Tedavisi Altındaki Protez Mitral Kapaklı Bir Hastada Mallory-Weiss Sendromu ile İlişkili Üst Gastrointestinal Sistem Kanaması

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ABSTRACT

Mallory-Weiss syndrome refers to bleeding from tears in the mucosa at the junction of the stomach and esophagus. Bleeding has been recognised as the major treatment-limiting complication in patients with prosthetic mitral valve using anticoagulant treatment. We report that upper gastrointestinal system bleeding associated with Mallory-Weiss syndrome in patient with prosthetic mitral valve using warfarin sodium.

Key Words: Warfarin, Mallory-Weiss syndrome; mitral valve; heart valve prosthesis.

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ÖZET

Mallory-Weiss sendromu mide-özefagus bileşkesindeki mukozada yırtıktan kanamaya kadar giden bir durumu ifade eder. Antikoagülan tedavi altındaki protez mitral kapaklı hastalarda kanama hayatı tehdit eden majör bir komplikasyondur. Burada; warfarin sodyum tedavisi altındaki protez mitral kapaklı bir hastada Mallory-Weiss sendromu ile ilişkili üst gastrointestinal sistem kanaması sunulmuştur.

Anahtar Kelimeler: Warfarin; Mallory-Weiss sendromu; mitral kapak; protez kalp kapağı.

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INTRODUCTION

Mallory-Weiss syndrome (gastroesophageal laceration syndrome) refers to bleeding from tears in the mucosa at the junction of the stomach and esophagus. Predisposing conditions to Mallory-Weiss tears include hiatal hernia, chronic alcoholism, and perhaps increasing age⁽¹⁾. Anti-coagulated patients who present with acute upper gastrointestinal bleeding cause important therapeutic challenges. Most are being anticoagulated for life-threatening conditions and the clinician is faced with the difficult choice of reversing anti-coagulation and risking arterial and/or venous thromboembolic consequences or continuing anti-coagulation⁽²⁾. Bleeding has been recognised as the major treatment-limiting complication in patient with prosthetic mitral valve using anti-coagulant treatment, especially warfarin sodium. The risk of bleeding is influenced by the intensity of anti-coagulation therapy, underlying disorder such as hepatic disease, comorbid conditions such as hypertension, and the concomitant use of acetilsalicylic acid and/or non-steroidal anti-inflammatory drugs and/or warfarin⁽²⁾. In this manuscript, we report that upper gastrointestinal bleeding associated with Mallory-Weiss syndrome in patient with prosthetic mitral valve using warfarin sodium.

CASE REPORT

A 60-year-old male patient was referred to the emergency department because of hematemesis. He had a history of dilated cardiomyopathy, and a 29 mm St. Jude prosthetic valve had been inserted in the mitral position 10 years earlier for mitral insufficiency. Since then he had been taking a maintenance dose of warfarin. On physical examination; he was anemic, blood pressure was 90/60 mmHg, heart rate was 114/minute and epigastric area was tender on palpation. In the laboratory findings of the patient, hemoglobin (7 g/dL) and hematocrit (22%) levels were low, and international normalized ratio (8.0) was markedly increased. After volume replacement (1000 mL 0.9% NaCl) and transfusion, he received a total of eight units of fresh frozen plasma and five units of erythrocyte suspension, the patient underwent esophagogastroduodenoscopy which revealed blood clots that adhere to ulcers in a mucosal tear in the distal esophagus (Mallory-Weiss syndrome) (Figure 1). In the laboratory findings after transfusion, hemoglobin was 12 g/dL, hematocrit was 37% and international normalized ratio was 1.2. The patient was stabilized by conservative medical therapy such as proton pump inhibitor, fresh frozen plasma and erythrocyte suspension. After stabiliza-

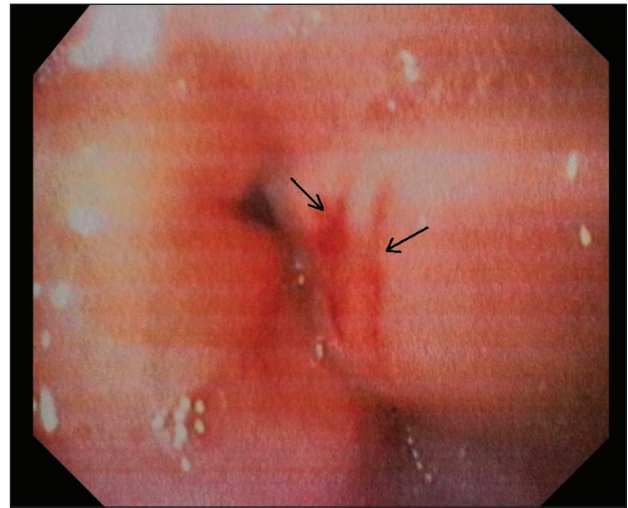


Figure 1. The esophagogastroduodenoscopy was revealed Mallory-Weiss tears (arrows).

tion, the patient received enoxaparin sodium 0.6 mL twice a day for preventing prosthetic mitral valve thrombosis. On transthoracic Doppler echocardiogram was showed an excellent working prosthetic mitral valve, with gradients of 5/2 mmHg (maximum/mean), valve area 2.62 cm² and no mitral regurgitation (Figure 2). After 1 week the patient was discharged from hospital with enoxaparin sodium 0.6 mL twice a day, warfarin 2.5 mg once a day (with following INR) and proton pump inhibitor (pantoprazole 40 mg once a day). At follow-up visits, the patient remained asymptomatic and INR was controlled at 2.5.

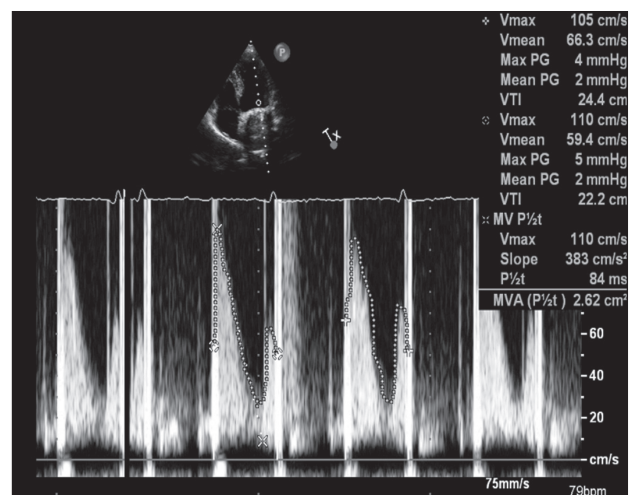


Figure 2. The transthoracic Doppler echocardiogram was showed an excellent working prosthetic mitral valve, with gradients of 5/2 mmHg (maximum/mean), valve area 2.62 cm².

DISCUSSION

We report that upper gastrointestinal bleeding associated with Mallory-Weiss syndrome in patient with prosthetic mitral valve using warfarin sodium. Mallory-Weiss syndrome is characterized by upper gastrointestinal bleeding secondary to longitudinal mucosal lacerations at the gastroesophageal junction or gastric cardia⁽¹⁾. The underlying mechanisms of this syndrome is not completely understood. Mallory-Weiss tears are usually secondary to a sudden increase in intraabdominal pressure including vomiting, coughing, cardiopulmonary resuscitation, epileptic convulsions, blunt abdominal injury, and gastroscopy^(1,3). De Vries AJ, et al. noted fatal upper gastrointestinal bleeding from a Mallory-Weiss tear after transoesophageal echocardiography during cardiac surgery⁽⁴⁾. Also, to our knowledge, upper gastrointestinal bleeding associated with Mallory-Weiss syndrome can occur as a rare complication of warfarin sodium therapy. This is the first case of bleeding associated with Mallory-Weiss syndrome related to warfarin. Warfarin sodium is an oral anticoagulant, which is often used to prevent thromboembolic complications in cardiovascular diseases especially mechanical prosthetic valve. Patients taking warfarin sodium for a variety of reasons are at increased risk of gastrointestinal bleeding. It is not the warfarin per se that causes bleeding, but in the event of a bleed it may prevent clotting, as our patient⁽⁵⁾. A greater risk of upper gastrointestinal bleeding in patients with mechanical prosthetic valve is related to the addition of acetilsalisilic acid or non-steroidal antiinflammatory drugs to patients taking warfarin sodium⁽⁵⁾.

In conclusion, to our knowledge, in real word, warfarin sodium may cause upper gastrointestinal bleeding associated with Mallory-Weiss tear. Warfarin sodium may restart one week after bleeding had stopped in this patients. Also, patients with Mallory-Weiss syndrome and mechanical prosthetic valve must receive long term maintainance treatment with proton pump inhibitors.

CONFLICT of INTEREST

None declared.

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