



CASE REPORT

Different types of tricuspid flail: Case reports and review of the literature



Antonio D'Aloia, Ivano Bonadei, Enrico Vizzardi*,
Edoardo Sciatti, Silvia Bugatti, Antonio Curnis, Marco Metra

Section of Cardiovascular Diseases, Department of Medical and Surgical Specialties, Radiological Sciences and Public Health, University of Study of Brescia, Italy

Received 3 May 2014; accepted 20 June 2015
Available online 6 April 2016

KEYWORDS

Tricuspid regurgitation;
Leaflet flail;
Valvular disease

Abstract Tricuspid regurgitation (TR) is a common Doppler echocardiographic finding resulting from either intrinsic valve abnormalities or functional malcoaptation of structurally normal valves. TR caused by flail leaflets is most often post-traumatic, is caused by endocarditis or is a consequence of a myxomatously degenerated valve. The clinical presentation is severe and is characterized by excess mortality and high morbidity. Flail leaflets are reliably diagnosed using 2-dimensional and 3-dimensional echocardiography.

© 2016 Hellenic Cardiological Society. Publishing services by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

1. Introduction

Tricuspid regurgitation (TR) is a common Doppler echocardiographic finding resulting either from intrinsic valve abnormalities or functional malcoaptation of structurally normal valves. TR caused by flail leaflets is most often post-traumatic, is caused by endocarditis or is a consequence of

a myxomatously degenerated valve. The clinical presentation is frequently severe and is characterized by excess mortality and high morbidity.¹ Flail leaflets are reliably diagnosed using 2-dimensional echocardiography² and 3-dimensional echocardiography.³

We hereby report three cases of patients with tricuspid flail of different aetiologies, diagnosed by an echocardiogram according to the guidelines of the European Society of Cardiology.⁴

* Corresponding author. Dr. Enrico Vizzardi, Piazzale Spedali Civili 1, 25123 Brescia, Italy. Tel.: +39 030 3995659; fax: +39 030 3995061.

E-mail address: enrico.vizzardi@tin.it (E. Vizzardi).

Peer review under responsibility of Hellenic Cardiological Society.

2. Case 1

A 55-year-old man was admitted to our department due to worsening dyspnoea for two days. He was affected by

arterial hypertension and did not have other history of systemic illnesses. However, he had suffered from blunt chest trauma one week before. A bobsled hit his thorax and abdomen while he was walking through a ski run. Clinical evaluation after the accident did not show any thorax or abdomen abnormality. At admission, his pulse rate was 80/min, his blood pressure was 100/70 mmHg, his body temperature was 36.8°C and his respiration rate was 16/min. Physical examination revealed a grade III/IV pansystolic murmur that was best heard at the fifth intercostal space along the left sternal border, hepatomegaly, and jugular distention. The electrocardiogram (ECG) showed normal sinus rhythm with right bundle branch block and right axis deviation. Chest X-ray showed a slightly increased cardiothoracic ratio. Routine laboratory tests were normal. A transthoracic echocardiogram (TTE) was performed. Left ventricular (LV) wall thicknesses, dimensions and ejection fraction (LVEF) were normal. There were no abnormalities in the valvular structures in the left side of the heart, but there was severe tricuspid regurgitation with dilated right atrium and right ventricle with normal wall motion. Systolic pulmonary arterial pressure was increased (58 mmHg). Severe tricuspid regurgitation was due to a flail leaflet of the tricuspid valve (Fig. 1, top). It was concluded that the tricuspid valve was injured after the blunt chest trauma. The patient underwent surgical repair with chordate reconstruction and annuloplasty. No complications occurred in the postoperative period.

3. Case 2

A 47-year-old white man was admitted to our hospital with dyspnoea at rest. He had a previous history of cardiac transplant for acute myocarditis and a recent myocardial biopsy for routine follow up to search for signs of rejection. At the current presentation, the physical examination revealed a grade IV/V pansystolic murmur at the fifth intercostal space along the left sternal border, hepatomegaly, peripheral oedema, and bilateral lower-lung crackles. Electrocardiography revealed sinus rhythm with spread and unspecified ventricular depolarizations in antero-inferior leads. Laboratory tests were normal. Upon his admission to the hospital, TTE revealed a LVEF of 60% with septal wall hypokinesia and increased left LV wall thickness (the results had been present in an echocardiogram 1 month earlier). Moreover, there was severe tricuspid regurgitation with dilated right atrium and right ventricle with normal wall motion. Systolic pulmonary arterial pressure was increased (43 mmHg). Severe tricuspid regurgitation was due to a flail leaflet of the tricuspid valve, most likely caused by biotome (Fig. 1, middle). The patient's condition was initially stabilized with intravenous diuretics, and then he underwent surgical repair with chordae reconstruction and annuloplasty.

4. Case 3

A 62-year-old woman was admitted to our department with a diagnosis of suspected catheter endocarditis. A transoesophageal echocardiography (TEE) was performed a few days before at another centre for a persistent fever of

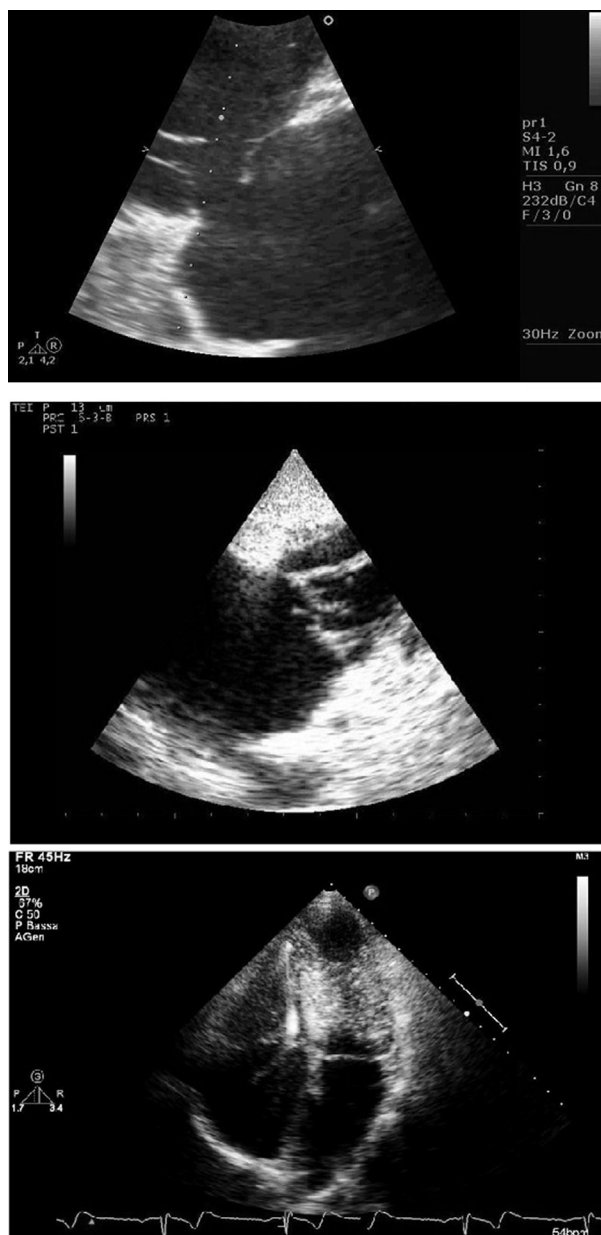


Figure 1 Top: Echocardiographic image of the tricuspid flail leaflet in case patient 1. Middle: Echocardiographic image of the tricuspid flail leaflet in case patient 2. Bottom: Echocardiographic image of the tricuspid flail leaflet in case patient 3.

unknown origin with leucocytosis and increasing C-reactive protein and erythrocyte sedimentation rate. It showed vegetation on the right catheter of the dual-chamber pacemaker (PM) implanted 3 years earlier for brady-tachy syndrome. During the hospitalization, the patient underwent catheter extraction and a repositioning procedure; both were well tolerated. After a few hours, the patient developed heart failure. She was evaluated by an echocardiogram that showed new onset mild tricuspid regurgitation with a flail leaflet of the same valve (Fig. 1, bottom) and an increased systolic pulmonary arterial pressure (40 mmHg). She was treated with intravenous diuretics with benefit. We concluded that the tricuspid valve was injured after the right catheter extraction.

Download English Version:

<https://daneshyari.com/en/article/2925979>

Download Persian Version:

<https://daneshyari.com/article/2925979>

[Daneshyari.com](https://daneshyari.com)