Aortic regurgitation associated with cabergoline therapy

Introduction

Evidence from case reports and other studies has suggested a relationship between the use of ergot-derived dopamine agonists and cardiac valvular regurgitation. This article presents the case of a 57-year-old man with isolated aortic regurgitation associated with cabergoline therapy. To the authors' knowledge this is the first report of valvular regurgitation affecting only the aortic valve in a patient taking cabergoline.

Discussion

Recent evidence has suggested a relationship between the use of ergot-derived dopamine agonists and valvular heart disease (Schade et al, 2007). This finding is supported by several case reports describing valvular regurgitation involving multiple cardiac valves, associated with the use of cabergoline and pergolide (Hovarth et al, 2004; Pinero et al, 2005; Scozzafava et al, 2006). The main indication for this group of drugs is Parkinson's disease, and reports of valve dysfunction have been almost exclusively in this group of patients. The average age of cases in a recent cohort study was 73 years (Schade et al, 2007). Typical echo features are valve thickening with restriction and poor coaptation of the valve leaflets.

Conclusions

This is the first case to the authors' knowledge of cabergoline-induced valvular regurgitation affecting only the aortic valve, and occurred in a patient younger than those described in previous reports. BJHM

Horvath J, Fross RD, Kleiner-Fisman G et al (2004) Severe multivalvular heart disease: a new complication of the ergot derivative dopamine agonists. *Mov Disord* **19**(6): 656–62

Pinero A, Marcos-Alberca P, Fortes J (2005) Cabergoline-related severe restrictive mitral valve disease. *N Engl J Med* **353**(18): 1976–7

Schade R, Andersohn F, Suissa S, Haverkamp W, Garbe E (2007) Dopamine agonists and the risk of cardiac-valve regurgitation. *N Engl J Med* **356**(1): 29–38

Scozzafava J, Takahashi J, Johnston W, Puttagunta L, Martin WR (2006) Valvular heart disease in pergolide-treated Parkinson's disease. *Can J Neurol Sci* **33**(1): 111–13

Figure 1. Transoesophageal echo showing regurgitant jet.

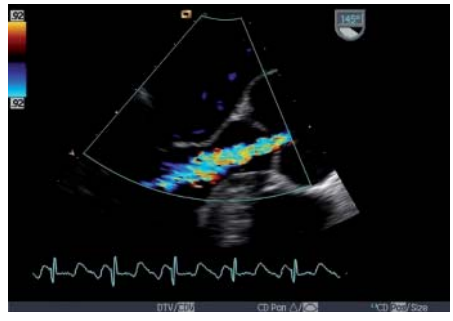

Figure 2. Failure of coaptation of aortic valve leaflets.

Case Report

A 57-year-old man with a history of Lewy body dementia was referred for cardiac assessment with a history of exertional dyspnoea and orthopnoea. Symptoms developed 12 months after commencement of cabergoline by his neurologist. Transoesophageal echo demonstrated aortic regurgitation, which was moderate by vena contracta (0.6 cm) (*Figure 1*). The aortic valve was tricuspid and was not thickened or calcified. The leaflets appeared tethered and failed to coapt (*Figure 2*).

Other cardiac valves were normal. The appearance was typical of that associated with ergot-derived dopamine agonists, so the aortic regurgitation was considered to be secondary to treatment with cabergoline.

Dr Kristopher Lyons *is Cardiology Registrar (LAT) in the Cardiology Department, Ulster Hospital Dundonald, Belfast BT16 1RH and* **Dr Danny Flannery** *is Consultant Cardiologist in the Cardiology Department, Craigavon Area Hospital, Craigavon*

Correspondence to: Dr K Lyons

Forthcoming case reports

- Neurosarcoidosis presenting as ghost lesions in the CNS: a diagnostic dilemma
- Spontaneous splenic rupture in the postpartum period
- Coarctation of the aorta, hypertension and associated features
- Cerebral venous sinus thrombosis in polycythaemia
- A simple case of heart failure?