Post-partum cardiomyopathy: an uncommon case of recurrence

Peripartum cardiomyopathy is a relatively rare cause of heart failure, occurring in 1 in 1300 to 1 in 4000 deliveries in the United States[1-2] and usually defined as non-specific, congestive (dilated) cardiomyopathy causing signs and symptoms of left and occasionally right ventricular failure. It manifests itself more frequently during the last months of pregnancy or within the first 6 months following delivery. A stronger preponderance was found in older and multiparous women and in twin births. The aetiological diagnosis[3] depends on the context of the occurrence and on the absence of any previous heart disorders or known causes.

We report an unusual case in a 26-year-old woman. The first signs of cardiomyopathy appeared 2 months after the uneventful delivery of her third child. After 2 weeks of unsuccessful medical treatment, she was admitted to our institution in cardiogenic shock. The cardiothoracic ratio was 0.66 and the echocardiogram showed global hypokinesia, a dilated right ventricle and a left ventricular ejection fraction of 20%. The Swan-Ganz catheter examination demonstrated low-cardiac output (cardiac index = 1.51. min⁻¹. s. m⁻²). Initially, she was treated with high doses of diuretic and inotropic drugs without success. So the decision was made to use a biventricular assist device, the Abiomed BVS System 5000 (Abiomed Cardiovascular, Inc, Danvers, Mass). Myocardial biopsies performed during the surgical procedure showed myocarditis (inflammatory cell infiltration with non-specific myocardial necrosis). Virology and immunology studies were negative. The biological data only revealed a hypoproteinaemia at 40 g. l⁻¹.

Mechanical support was used for 16 days. Repeated transesophageal echocardiographic controls showed progressive recovery of myocardial contractility, so it was decided to wean the patient with mechanical assistance. During the first 2 months’ follow-up, the patient’s cardiac status remained normal, except for the cardiothoracic ratio at 0.60. Subsequently, clinical and echocardiographic demonstrated gradual but regular myocardial function impairment. The patient was then treated with corticotherapy, unsuccessfully. Finally she was readmitted in the intensive care unit in a poor condition, 107 days after assistance weaning. The availability of a suitable heart graft gave us the opportunity to perform emergency cardiac transplantation. After successful orthotopic cardiac transplantation, the patient’s condition improved, and at 24 months after the transplantation, she was doing well.

The natural course of peripartum cardiomyopathy remains uncertain. In some cases, recovery occurs rapidly within a few months[4]. However, the evolution is sometimes unfavourable, making cardiac transplantation necessary[5]. The use of a left ventricle assist device, as a bridge to cardiac transplantation, has already been reported[6]. Ours is the first reported case initiated by heart failure successfully treated by mechanical circulatory assistance, but with an usual recurrence of myocardial dysfunction 2 months later and finally requiring heart transplantation. It demonstrates the possibility of heart failure recurrence after a stage of recovery and confirms the negative prognosis of initial hypoproteinaemia and persistent cardiomegaly.

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References


Hypertrophic subaortic stenosis and hyperparathyroidism

We report a case of hypertrophic cardiomyopathy and parathyroid adenoma, with emphasis on the results of adenoma removal on cardiac signs of left ventricular outflow tract obstruction.

In 1976 a 42-year-old man was admitted to hospital because of heart murmur. He complained of effort-related chest pain. A holosystolic murmur grade 4/6 louder at the fourth left intercostal space increasing with the Valsalva manoeuvre was heard. A presystolic sound was present at the apex and the carotid impulse was brisk. The ECG showed left ventricular hypertrophy, and chest radiographs slight cardiac enlargement. The echocardiogram documented the presence of increased thickness of the interventricular septum, and systolic anterior motion of the anterior mitral valve leaflet. A coronary angiogram showed normal coronaries and ventriculography confirmed the clinical diagnosis of hypertrophic subaortic stenosis. Treatment with β-blockers was introduced. Since 1986 the ECG

Percutaneous arterial approach revisited

The Editorial entitled "Percutaneous Arterial Approach Revisited"[7] states that ‘visualization of the coronary arteries was first described by Mason Sones in 1953’. The first selective coronary arteriography was performed by Dr Sones, but the first attempt to visualize the coronary arteries in humans was carried out by myself in 1953[2]. In fact, E. Coelho and his colleagues were pioneers in finding new methods specifically for coronary visualization. M. Sones should be credited for developing the techniques for clinical usage. The volume of work Sones did in Cleveland led to its general acceptance, but E. Coelho and colleagues should be credited with originating the technique.

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