

CASE REPORT

Surgical Management Of Severe Ar Following Candida Aortic Valve Endocarditis

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ABSTRACT

BACKGROUND: Infective endocarditis (IE) remains a dangerous condition with unchanging incidence and a mortality approaching 30% at 1 year.¹Surgery is potentially lifesaving²and required in 25% to 50% of cases during acute infection and 20% to 40% during convalescence.³⁻⁵Operative procedures are often technically difficult and associated with high risk. The most frequent indications are congestive heart failure (60%), refractory sepsis (40%), embolic complications (18%), and vegetation size (48%), with a combination of these factors being present in many patients.⁷Overall surgical mortality in active IE is 6% to 25%, with long-term survival rates of approximately 70% in most series.³⁻⁵We present a case report of severe AR following candida aortic valve endocarditis who was successfully treated with aortic valve replacement. The purpose of this paper is to discuss about an extremely rare pathology and to highlight favorable results of the treatment used, despite the limited experience in the literature

Keywords: fungal endocarditis, vegetations, aortic valve replacement

INTRODUCTION

Infective endocarditis with fungi is a rare condition, especially when it occurs on native valves, it is severe and has a mortality rate of over 50%. In general, the most common fungal agent is Candida albicans, usually encountered in cases of debilitated patients with prosthetic valves, in patients undergoing cardiac surgery, in drug users, in immunocompromised patients, in patients with prolonged intravenous antimicrobial therapy and parenteral nutrition.⁶

CASE REPORT

An 18 year old boy with a history of Hepatitis B +ve status was admitted to G B PANT HOSPITAL,NEW DELHI with complaints of dyspnea on exertion NYHA class III and history of fever for the last 2 months. ECHO revealed bicuspid aortic valve, severe AR and vegetations over aortic valve. Blood culture was sent that growth. iv Voriconazole and caspofungin

was started.Patient later on became afebrile and blood culture was sterile.After 2 months ,patient was operated with aortic valve replacement using 24 mm ATS valve using the usual standard technique. Intraoperative, aortic valve leaflets were found to be studded with vegetations. Vegetations were sent for culture and histopathological examination that came out candida albicans .Post op period was uneventful and he was discharged on post op day 16 on tab fluconazole 150 mg OD for 12 wks.

DISCUSSION

Fungal IE, secondary to infection with Candida or Aspergillus, is often complicated by bulky vegetations, metastatic infection, periannular spread and embolic events. Penetration of antifungal agents (notably, amphotericin B) into infected material is poor and surgery is almost always necessary, particularly when complications are present.⁸ Long-term (potentially lifelong) antifungal therapy with an oral azole may have the ability to suppress infection in selected patients, and this approach may be considered in those who are otherwise unfit for surgery.⁹ Direct surgical treatment of IE began in 1961, when Kay and colleagues reported successful treatment of

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Candida endocarditis of the tricuspid valve. The native valve was débrided and an accompanying ventricular septal defect (VSD) closed. The first report of replacing a cardiac valve for native IE was published in 1965 by Wallace and colleagues. Their patient was a 45-year-old man who had severe aortic regurgitation with heavy Klebsiella vegetations on each cusp. He was treated intensively with antibiotics over 3 weeks, but there was resistant active infection and heart failure. Valve replacement was successful, eradicating the infection and restoring satisfactory hemodynamics. In practice, diagnosis of IE is primarily based on two tests: blood cultures and echocardiography. The diagnosis is made most often by the presence of positive blood cultures and a cardiac lesion characterized by new stenosis, new regurgitation, or echocardiographic evidence for a vegetation. There are many more individuals with sepsis and positive blood cultures but without cardiac manifestations, and they are not considered to have IE. About 40% to 45% of all patients with IE undergo surgical therapy.¹⁰ Goals of operative therapy are to (1) remove infected tissue and drain abscesses, (2) restore or reconstruct atrioventricular or ventriculoarterial continuity, and (3) reverse the hemodynamic abnormality. Drainage of abscesses, débridement of areas of necrosis, and improvement of mechanical function by repair or replacement of infected valves are done as required. Operation is also aimed at closing acquired defects (e.g., VSD, ring abscess, fistula, aneurysm) and in children may include repairing the underlying malformation.

CONCLUSION

Fungal endocarditis remains a fatal entity. Early diagnosis, suitable medical and surgical management salvage the patients. If the bioprostheses or homografts are not available, mechanical valve replacement is also a useful alternative.

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