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Double Orifice Mitral Valve (DOMV) With Atrioventricular Canal Defect (AVCD)-A Surgical Challenge

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Abstract

In Double Orifice Mitral Valve (DOMV) with Atrioventricular Canal Defect (AVCD) aim of the team should be to prevent residual regurgitation and new stenosis. We present a case report of DOMV detected incidentally during surgery in a case of AVCD with severe mitral regurgitation. **Keywords:** Congenital heart disease; Double orifice mitral valve; Valve repair

Introduction

Double Orifice Mitral Valve (DOMV) is a rare cardiac anomaly. It is uncommon to find it as an isolated lesion and is seen associated with Atrioventricular Septal Defects (AVCD) in approximately 5% of cases [1]. Although a number of case reports of DOMV have been reported, literature highlighting its surgical management is scarce [2-4].

Preoperative planning with 2D echocardiography and magnetic resonance imaging is required. The challenge lies in, repair of DOMV associated with regurgitation, without producing new stenosis. We have described a case of successful repair of DOMV with AVCD without new onset stenosis or residual regurgitation.

Case Study

A 2-year male child presented with history of recurrent chest infection and failure to thrive, for 6 months of age. On examination, along with pre cordial bulge, a pansystolic murmur, was heard over left lower sternal border. Echocardiography revealed complete AVCD, moderate Tricuspid Regurgitation (TR), severe MR and dilation of RA

the orifices and almost all the chordae were attached to them, making both orifices prone to stenosis after repair. On saline jet test, minor orifice was competent, but gross MR was seen to be emanating from cleft like area in major orifice. The bridge between the two orifices was left untouched. The cleft like area in the major orifice was partially closed with 6/0 prolene, using continuous suture technique.

and the combined orifice area of the two orifices corresponded to z value of 0 according