Unicuspid Unicommisural Aortic Valve in a Septuagenarian

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Abstract

A 75-year-old woman presenting with dyspnea and chest pain underwent cardiac catheterization revealing three-vessel coronary artery disease with severe calcific aortic stenosis and dilated aortic root (Figure 1). A multi-gated acquisition scan (MUGA) was performed revealing LVEF to be 50%, reassuring consensus to proceed with aortic valve replacement and concomitant coronary artery bypass grafting. She was brought to the cardiovascular operating room (CVOR) in stable condition. Routine cardioplegia ensued after placement on cardiopulmonary bypass and grafting was performed to the obtuse marginal, posterior descending, and left anterior descending arteries. Upon successful grafting, attention shifted to the aorta. A transverse incision was made 2cm above the annulus, exposing the valve. A severely thickened, unicuspid, unicommisural aortic valve was observed (Figure 2) and replaced with a 23mm Edwards ® Inspiris ™ valve. Unicuspid unicommisural aortic valves are rare manifestations with a prevalence of 0.02% [1]. They precipitate congenital aortic stenosis in patients within the first 4th-6th decades of life [2]. Outcomes are promising with aortic valve replacement [3]. Herein, we showcase this anomaly manifesting symptomatically in a septuagenarian, with successful surgical replacement and coronary bypass grafting.

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