Images in Cardiology

This section edited by Edward A. Geiser, M.D.

Cloth-Covered Starr-Edwards Valves

FIG. 1 Apical view showing a cage/ball valve in the mitral position with two densities extending from the cage into the left ventricle.

The echocardiogram shown (Fig. 1) is from a 60-year-old man with a past history of rheumatic mitral stenosis who had a mitral valve replacement in 1974. He was currently being evaluated for mitral valve replacement because of recurring episodes of heart failure, periprosthetic mitral regurgitation, aortic stenosis, and tricuspid regurgitation. His primary symptoms were edema and shortness of breath and there were no recent symptoms to suggest emboli and no fevers or night sweats.

The two "rabbit ears" at the tip of the ball/cage prosthesis were seen to be highly mobile and, initially, endocarditis was suspected. The incidence of thromboembolism with the initial Starr-Edwards prosthesis decreased with the introduction of cloth covering in the early 1970s. One of the hazards of cloth covering, however, came from wear of the cloth itself, with a potential for embolization. The surgical specimen is shown at the time of removal (Fig. 2).

The cloth-covered models were the Starr-Edwards 6300, 6310/6320, and the 6400. While patients with these valves are

FIG. 2 Valve at the time of surgical removal.

becoming rare, it is still important to recognize or suspect some of the particular pathology of these valves. In patients who are not experiencing embolic events or symptoms of endocarditis, the differential diagnosis should include wear of the cloth covering until the model number can be confirmed.

Reference

1. Forman R, Beck W, and Barnard CN: Results after mitral valve replacement with cloth-covered Starr-Edwards prostheses (models 6300, 6310/6320, and 6400). *Brit Heart J* 1978;40:612-616

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