

Four Years Experience with Aortic Valve Sparing Procedure (David).

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Objectives

Description of 24 consecutive cases of aortic valve sparing procedures with aortic valve reimplantation (David I).

Material and method

From 2002 to 2006 24 patients were operated using the David I technique, 22 of them electively and two patients for acute dissection.. Age range was 32-75 years (mean 59) and male/female ratio 14/10. Sixteen patients had an aneurysm of the ascending and aortic root. Six patients had aneurysm of the sinuses of valsalva. Sizes of aneurysm were varied from 50 to 95 mm (mean 68 mm).

The patients were examined with echocardiography pre-, per- and at intervals postoperatively.

Results

We had two failed cases that had a grade III residual AI after cardiopulmonary bypass who had to be converted to a Composite graft or biological prosthesis, respectively. In the first case, the most likely cause was prolaps due to a small graft. The second case had minimal calcification of one cusp.

The remaining 22 patients with a successful David I procedure had a satisfactory postoperative result at 6-48 months follow up. Seven patients had AI grade (I), twelve patients had AI grade II, and two patients had AI grade III. There was no intraoperative or hospital mortality.

During the follow up 3 patients died at four months, five months and three years, respectively, from causes unrelated to the procedure.

A short movie sequence will demonstrate the procedure and point out possible pitfalls.

Conclusion

The David I procedure can be safely performed and should be considered as the method of choice when the aortic valves anatomically normal.