

**Pledged suture increase risk of early mortality after AVR.  
5 years results with Carpentier-Edwards Perimount Magna 3000.**

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New bioprosthesis provide excellent hemodynamic properties. Supraannular Magna 3000 valve characteristic is similar to stentless prosthesis and adequate implantation technique is required for optimal results.

**Method:**

From December 2002 to March 2005 250 Magna 3000 bioprosthesis have been implanted in our department. Two different technique of implantation were used: pledgets below annulus (n=92, 36% ) and single simple suture (n=158, 63%). There were 79 (32%) patients with isolated AVR, 149 (60%) AVR+CABG, and 22 (8%) multivalve replacements. 91 patients had impaired LV (<30%) and 21 cases were redo operations. All patients underwent clinical follow up and ECHO after surgery.

**Results:**

Actuarial 30-day mortality was 5% (n=13). There were 3 late valve related complications (endocarditis and haemorrhage). 4 years survival was 79.9% with mean follow up 23±11.3 months. Multivariate analysis showed: BSA<1.8m<sup>2</sup>, age>70, CCS4 valve size<21mm, history of CVA/syncope (p<0.03), and use of pledged suture technique (P<0.04) as independent risk factors of 30 day mortality. Mortality was higher in group of patients where pledged suture technique was used for implantation (n=9) There was correlation between postoperative low EOA and use of pledgets.(p<0.05)

**Conclusion:**

Our early results are encouraging and comparable with papers describing stentless valve results. Magna 3000 can be used with excellent results in complex cases. Performance and clinical outcomes appear to benefit from implantation without pledgets. Pledgets may decrease EOA and predispose to patient-prosthesis mismatch.