

## Early postoperative results of the Dokimos plus stented pericardial aortic bioprosthesis

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### Objectives.

Evaluation of the hemodynamic performance and early postoperative results of a new stented pericardial prosthesis for the aortic position, the Dokimos plus prosthesis, which was recently introduced in Europe.

### Methods.

40 consecutive patients with a mean age of  $63.9 \pm 11.2$  years and a mean EuroSCORE II of  $2.7 \pm 1.9$  underwent elective isolated aortic valve replacement with the Dokimos plus valve mainly for aortic stenosis. Postoperative clinical data were collected and hemodynamic performance of the new prosthesis was evaluated using transthoracic echocardiography at discharge.

### Results.

The mean size of the implanted valves was  $25.1 \pm 1.9$  (median 25; range 21-27). There were no operative complications and patients were extubated after a mean of  $6.7 \pm 4.7$  hours. 1 patient had to be reexplored for bleeding and in two patients permanent pace maker insertion was necessary. Another two patients with preoperative renal insufficiency required dialysis postoperatively. There was no stroke or deep sternal wound infection. Patients were discharged after a mean of  $10.1 \pm 3.7$  days. 30-day-mortality was 0%. No structural or nonstructural valve dysfunctions were observed. Maximum and mean prosthetic pressure gradients were  $17.4 \pm 6.9$  and  $9.1 \pm 3.6$  mm Hg (table). At discharge no relevant regurgitation of the implanted Dokimos plus prostheses was present.

### Conclusion.

The Dokimos plus aortic bioprosthesis showed good postoperative hemodynamic performance and clinical outcome.

Table: Mean pressure gradients of the valve sizes

| Valve size (mm)      | 21   | 23  | 25  | 27  |
|----------------------|------|-----|-----|-----|
| $\Delta$ mean (mmHg) | 10.0 | 6.9 | 9.5 | 9.6 |