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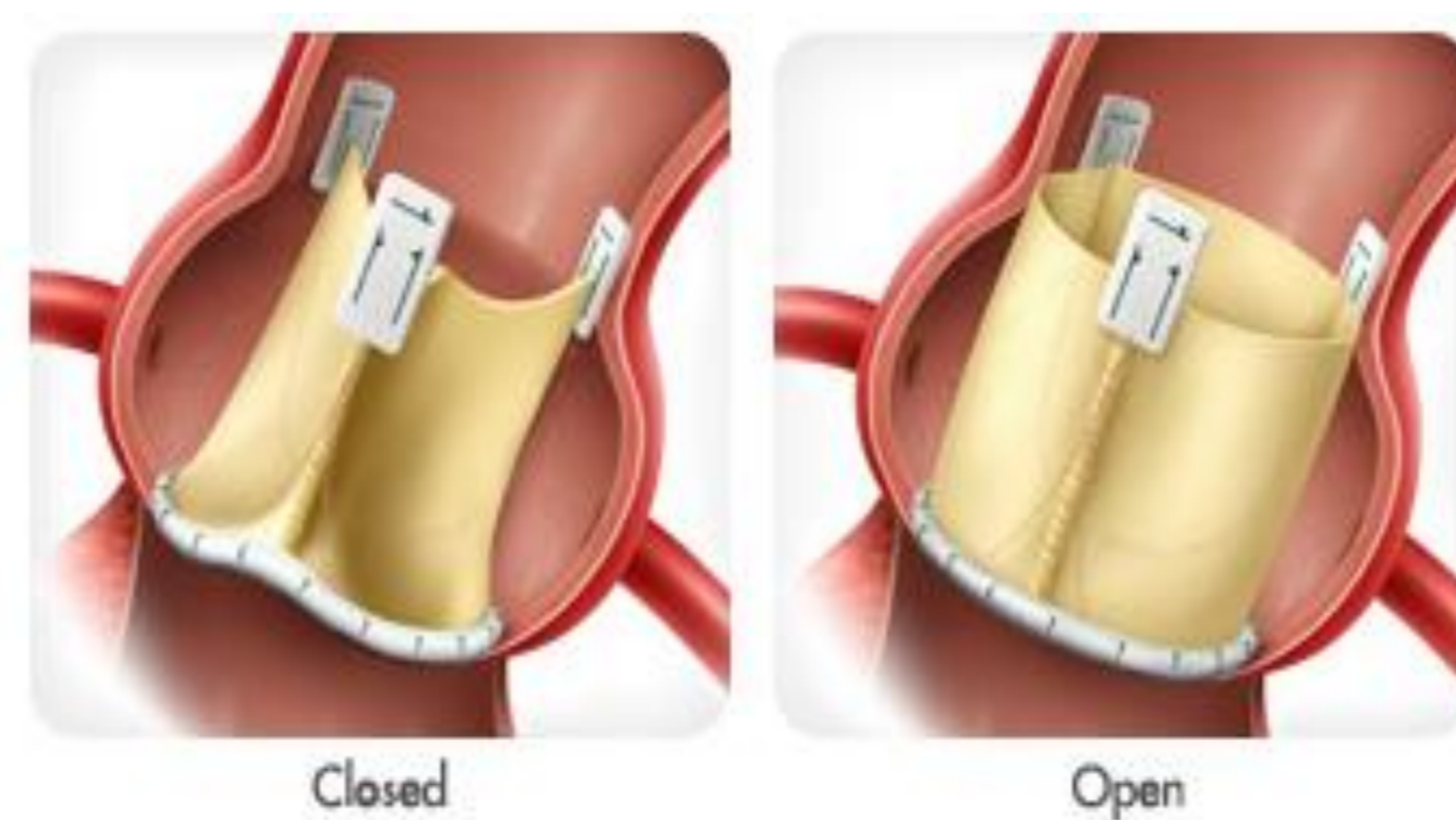
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## Left ventricular mass regression early after sutureless implantation of the ATS 3f Enable aortic valve bioprosthesis

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**Introduction** The ATS 3f Enable Bioprosthesis is a self-expanding valve with a tubular design that allows for decreased leaflet stress and preservation of aortic sinuses. Several reports have shown promising results in terms of mortality, morbidity and haemodynamic performance. However, the impact on LV mass is unknown. Therefore, the aim of this study was to assess the degree of LV mass regression after sutureless implantation of this bioprosthesis at 1-year echocardiographic follow-up.

**Methods** Between February 2010 and May 2012, 74 patients (mean age  $73 \pm 5$ ; 41 female; mean logistic Euroscore: 16.2) with symptomatic AS underwent isolated aortic valve replacement (AVR). Echocardiography was performed preoperatively, at discharge, and at follow-up (mean  $13.5 \pm 7.3$  months). LV mass was calculated using the Devereux formula and indexed to body surface area.

**Results** There were no intraoperative deaths or complications. 1 patient needed reoperation for partial detachment of prosthesis. LV mass index decreased from  $148.4 \pm 46$  g/m<sup>2</sup> at baseline to  $119.7 \pm 38.5$  g/m<sup>2</sup> at follow-up ( $P = 0.002$ ). Mean aortic gradient decreased from  $59.5 \pm 17.8$  mmHg at baseline to  $11 \pm 5$  mmHg at discharge and  $10.5 \pm 4$  mmHg at follow-up ( $P < 0.001$ ), resulting in significant clinical improvement. No moderate or severe paravalvular leakage was observed at discharge and at follow-up.

**Conclusions** In AS patients, isolated AVR with the ATS 3f Enable bioprosthesis is associated with significant LV mass regression at 1-year follow-up. However, longer-term follow-up is necessary to confirm these findings.

