

SEVEN-YEAR EXPERIENCE WITH NOVEL AORTIC BIOPROSTHESIS

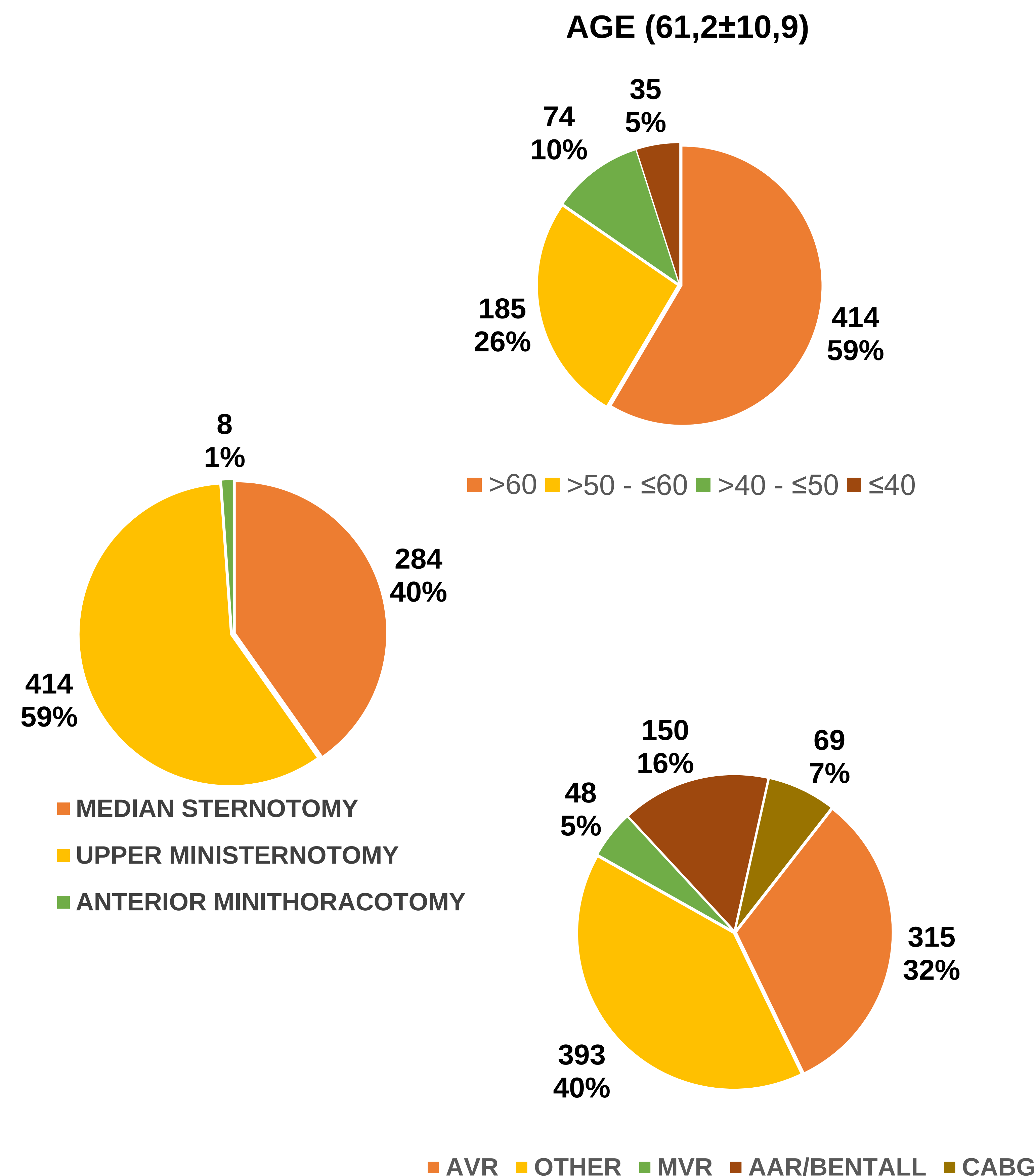
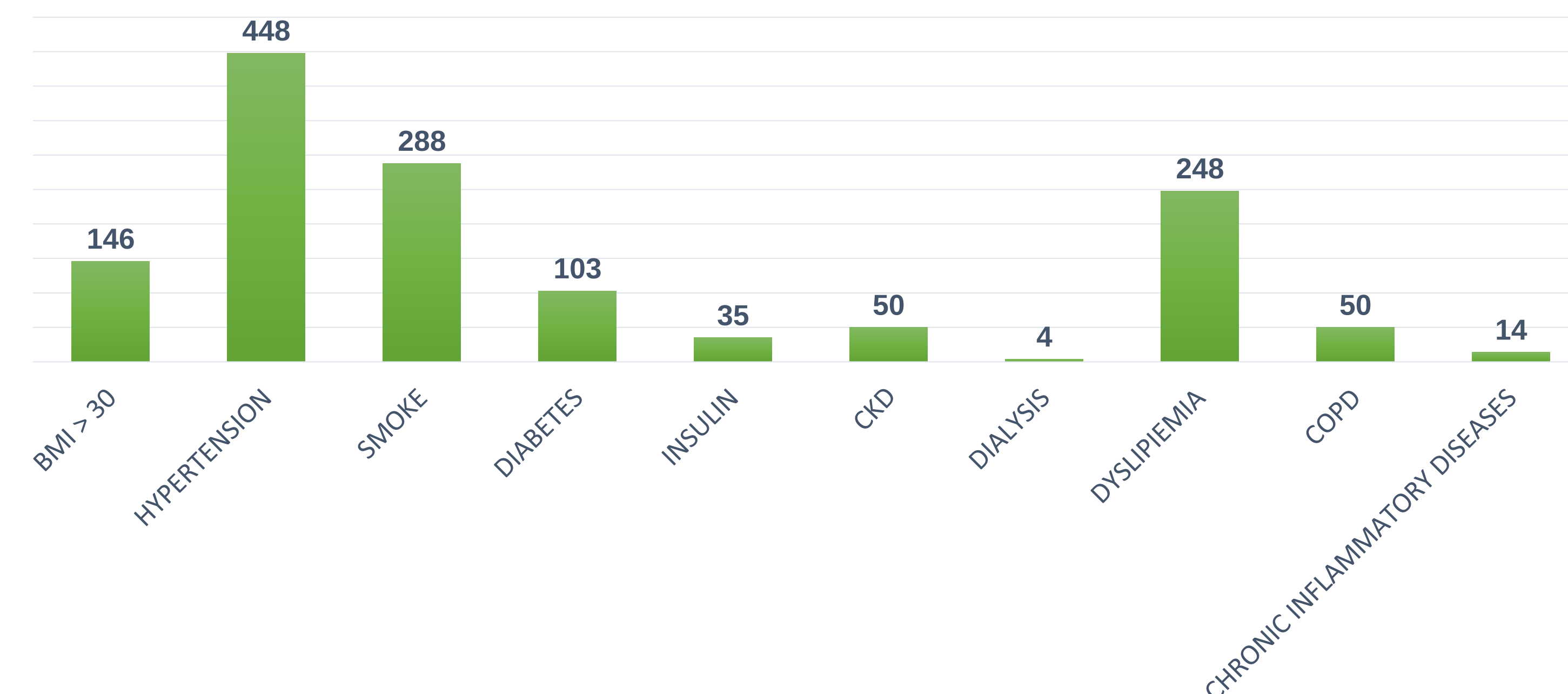
January 2018 – October 2024
708 patients

Objectives

Bioprostheses are increasingly used in young patients to avoid anticoagulation. The Inspiris Resilia aortic bioprosthesis (INSPIRIS) (Edwards Lifesciences LLC, Irvine, USA) has shown to be extremely promising in this population, thanks to a reduced calcification of the prosthetic leaflets in preclinical and early clinical studies. However, there is paucity of data on patients younger than 65 years. This study investigates the hemodynamic performance and clinical outcome of the Inspiris Resilia bioprosthesis in a group of young patients at increased risk of early structural valve degeneration (SVD).

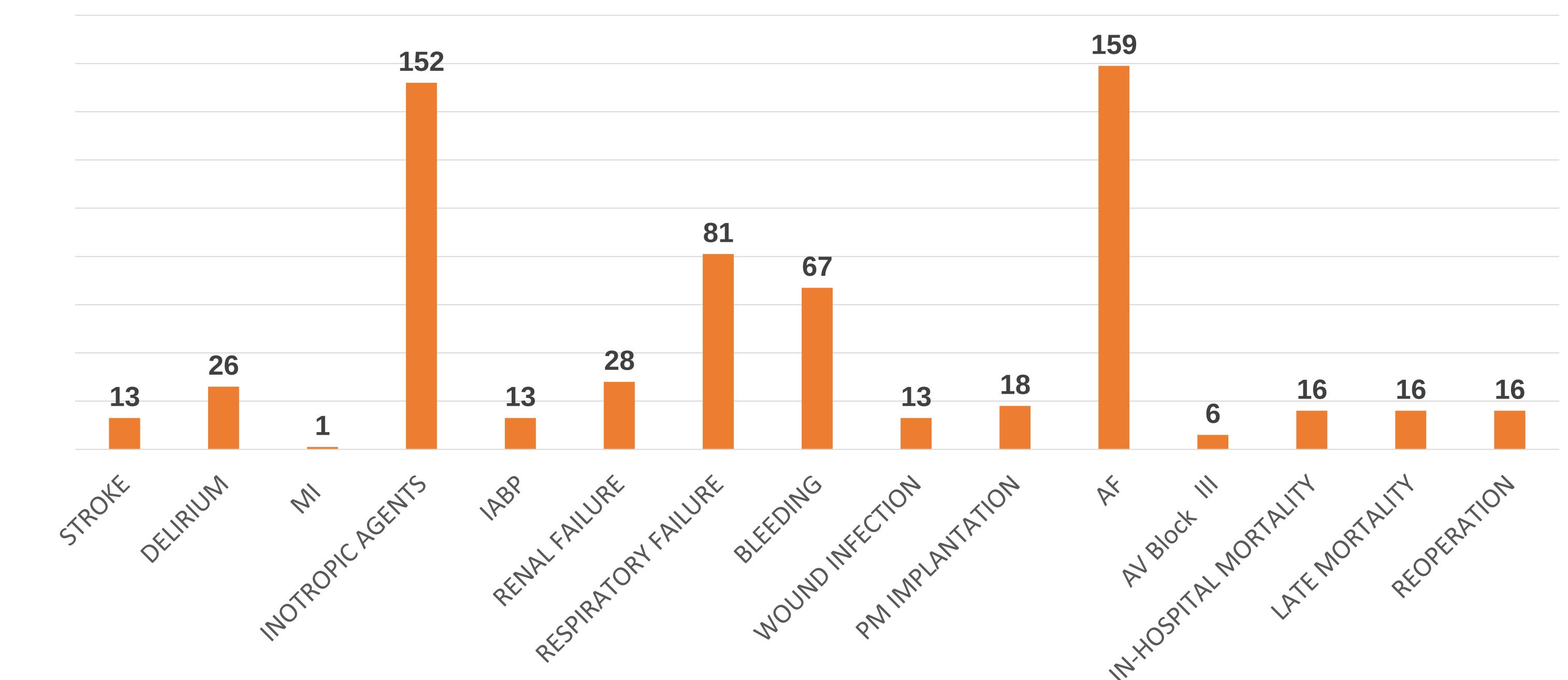
Methods

All the consecutive patients who received the study prosthesis from January 2018 to October 2024 were counted: 708 patients aged 61 ± 10.9 years underwent aortic valve replacement with the Inspiris bioprosthesis at our institution. Follow-up consisted of telephonic interviews and in-person visits for patients with doubtful findings. The mean follow-up was 27.5 ± 21.2 months (range 1-79.9 months).



Results

There was 1 case of valve thrombosis (0.1%) associated with a thromboembolic event. A transient increase in transprosthetic gradient, in the range of subclinical SVD, was observed in only 6 patients (0.85%). 16 patients (2.2%) needed reoperation during the follow-up, only in two cases (0.3%) for an actual degeneration. 32 patients died (4.4%), 16 during the hospitalization and the other 16 after discharge. At follow-up, all but four patients reported a significant improvement in their performance status and quality of life.



Conclusions

Our study demonstrates good early hemodynamics and promising results at up to six years in a cohort of very young patients at increased risk of SVD. Further studies with longer follow-up are needed.