

Propensity-matched Comparison of Minimally Invasive Sutureless Aortic Valve Replacement versus Transcatheter Treatment in Elderly Patients

Objective:

Compare short-term outcome of both procedures using propensity matching

Methods:

Monocentric, retrospective study.

Between Oct 2017 – Dec 2019

Inclusion criteria:

Surgical AVR

- MICS
- Sutureless
- Elective
- no endocarditis

TAVR

- Transfemoral

Propensity score matching

- Nearest neighbor
- Caliper = 0.044

38 Matched pairs

Age (matched)

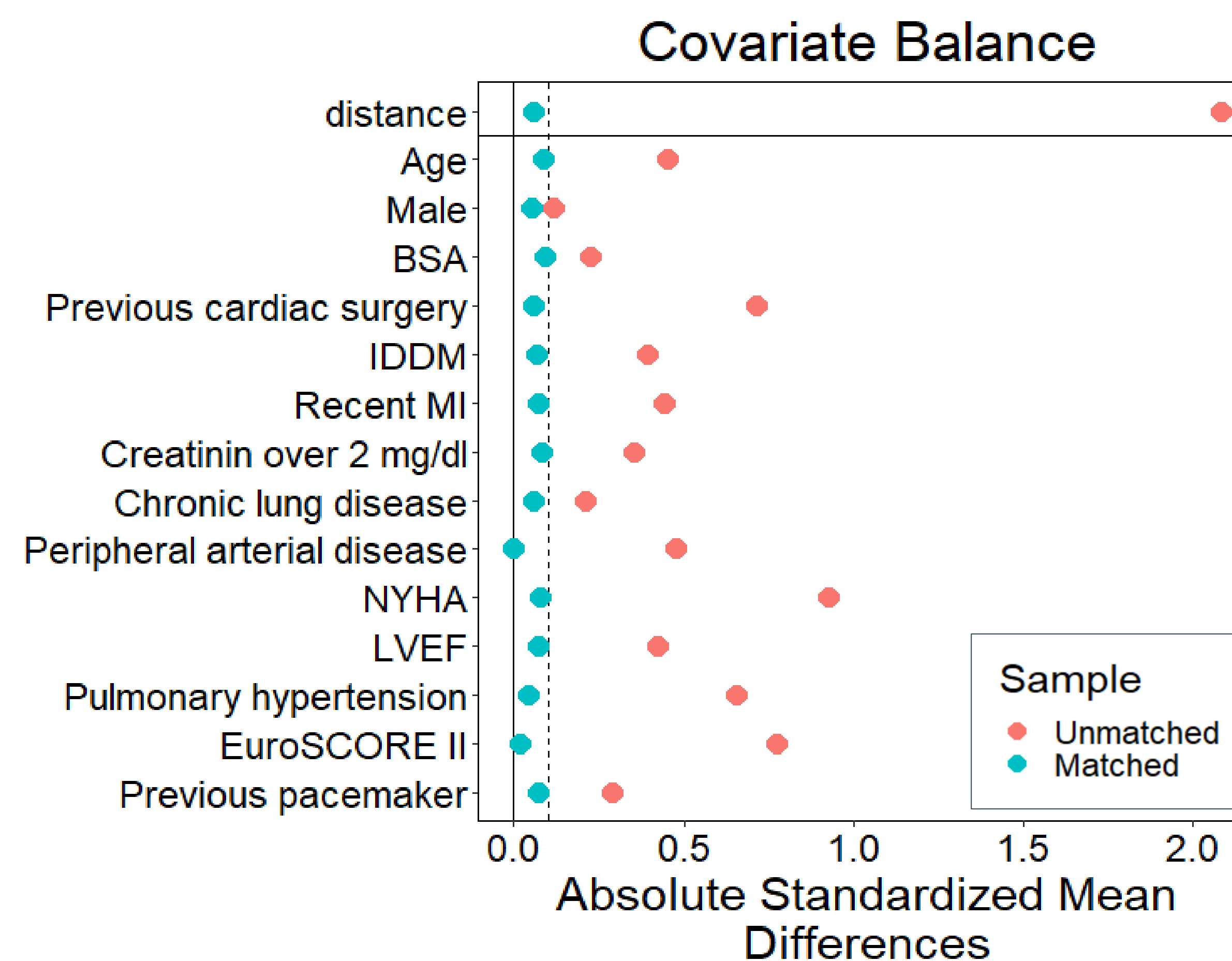
Su-AVR: 82 ± 5 years

TAVR: 82 ± 7 years

ES II (matched)

Su-AVR: 3.6% ± 1.7%

TAVR: 3.8% ± 1.9%



ICU LOS

Su-AVR: 2 days (1 - 4)

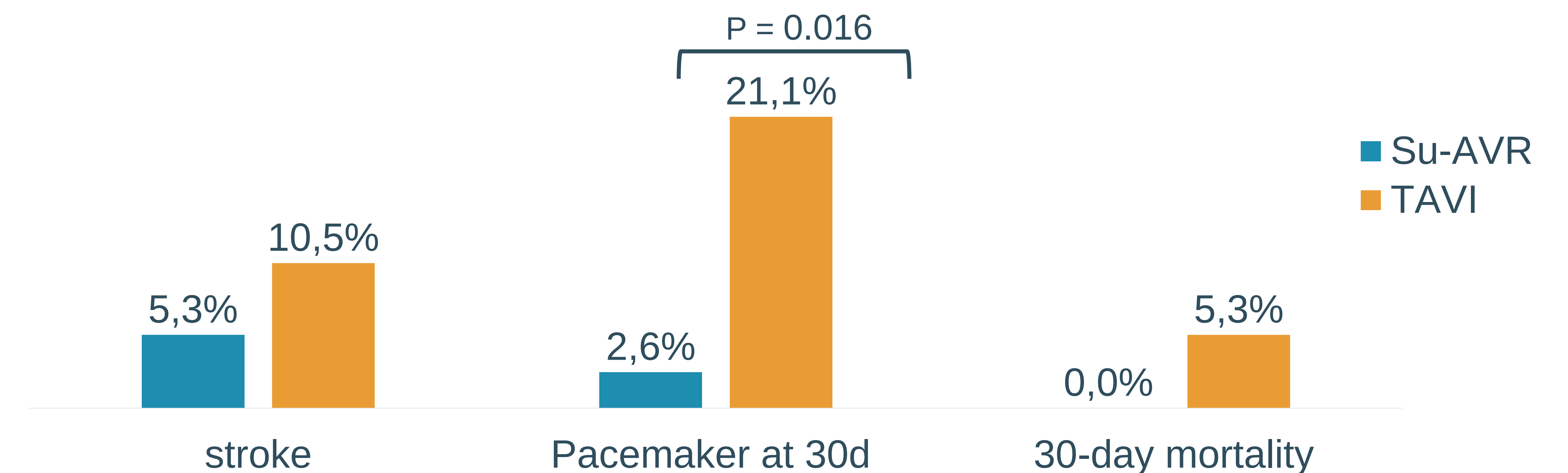
TAVR: 1 day (1 - 3)

Hospital LOS

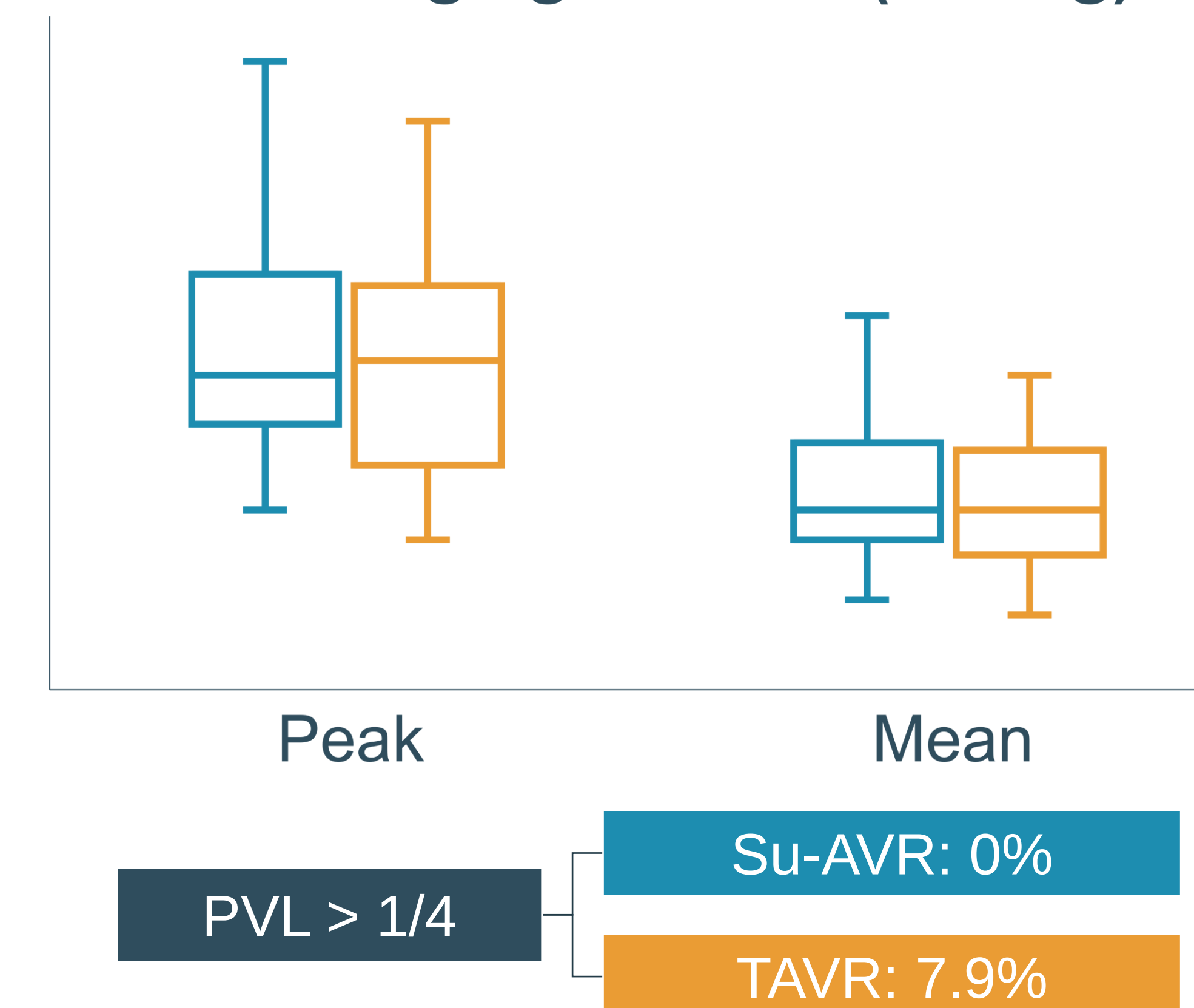
Su-AVR: 9 days (8 - 14)

TAVR: 4 day (3 - 8)

Outcome (matched)



Discharge gradients (mmHg)



Conclusion:

Even in elderly patients, surgical AVR using minimal access and a sutureless prosthesis results in a safe procedure, with low rates of major adverse events and good hemodynamics.

TAVR offers similar global outcome, with low gradients, but is associated with more paravalvular leakage and higher pacemaker need.