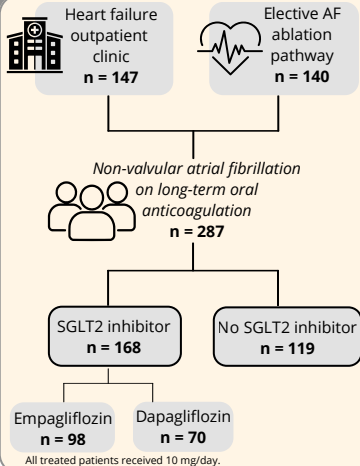


SGLT2 inhibitors and circulating biomarker profiles in patients with atrial fibrillation

A cross-sectional study in 287 patients with non-valvular atrial fibrillation on long-term oral anticoagulation

Study population



Circulating biomarker panel



Endothelial domain

- sVCAM-1
- sE-selectin
- Angiopoietin-2



Oxidative damage domain

- 8-OHdG
- AOPP



Integrative marker

- GDF-15



Clinical reference markers

(not part of the six-biomarker panel)

- NT-proBNP
- hs-TnT

Key findings



**sVCAM-1
+12.8%**

95% CI +3.6% to +22.9%

p = 0.006

Holm-adjusted P = 0.036

Only panel biomarker independently associated with SGLT2i use.

Other biomarkers

- sE-selectin, Angiopoietin-2
- 8-OHdG, AOPP
- GDF-15



No independent association with SGLT2i use.

Empagliflozin vs Dapagliflozin (within-class comparison)



vs



Empagliflozin
n = 98

Dapagliflozin
n = 70

No statistically detectable differences across all 8 measured analytes.

Endothelial and oxidative biomarker domains showed different patterns in SGLT2i-treated patients with atrial fibrillation. sVCAM-1 emerged as the only independently associated panel biomarker, while empagliflozin and dapagliflozin showed no detectable biomarker differences.

Cross-sectional association — no causal inference.