## Transradial balloon aortic valvuloplasty: a case report

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University Hospital Centre Split, Split, Croatia **KEYWORDS:** balloon aortic valvuloplasty, aortic stenosis, transradial, frail.

**CITATION:** Cardiol Croat. 2021;16(9-10):297. | https://doi.org/10.15836/ccar2021.297

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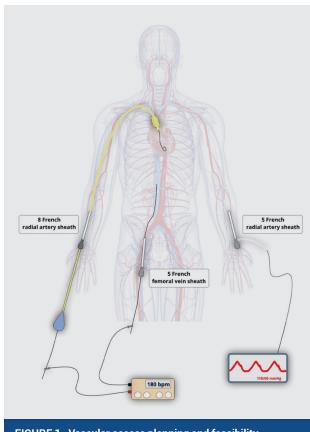


FIGURE 1. Vascular access planning and feasibility.

**Background and Aims:** Balloon aortic valvuloplasty (BAV) is usually used as a bridge to percutaneous or surgical aortic valve intervention. While BAV is traditionally performed via transfemoral approach, transradial BAV is a safe and feasible alternative. We present a case of BAV performed via transradial access at the University Hospital Centre Split, which to our knowledge, is a first time this procedure was performed in Croatia.

Protocol presentation: 86-year-old lady was hospitalized on the vascular surgery department with symptoms of critical limb ischemia. Upon preoperative examination a strong heart murmur was noticed, with ECG changes suggestive of left ventricle strain. An echo was performed revealing an ejection fraction of 30%, and a low flow - low gradient aortic stenosis (MPG 38 mm Hg, and Vmax 3.7 m/s). A CTA of the aorta revealed a chronic infrarenal dissection and an occlusion of the right iliac artery, basically disabling the classic femoral access. We decided to perform a balloon aortic valvuloplasty using radial access, as described in the SOFTLY-II trial<sup>3</sup>. Right radial access was obtained using a 6F sheath and a contralateral radial artery was cannulated for pressure monitoring during the procedure and a 5F sheath was placed in the femoral vein. After aortic valve crossing, a 260cm wire (Medtronic CONFIDA) was placed in the left ventricle apex. At that point the 6F sheath was exchanged with an 8F sheath (Figure 1). A non-compliant 18x40mm (Bard Atlas Gold) balloon was used during rapid pacing over the wire at 180/ min (positive electrode at the short wire placed in femoral vein and negative on the wire in the LV). Periprocedural analgosedation with propofol in the bolus-continuous infusion scheme was used during the rapid pacing.

**Conclusions**: Transradial BAV is a safe alternative to transfemoral BAV, especially in old and frail adults waiting for TAVR, while minimizing the bleeding risk, and femoral access complications.

RECEIVED: July 30, 2021 ACCEPTED: August 5, 2021



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