

Acurate Neo 2 is a self-expanding supranular valve with a unique “top-down” deployment, a process which allows for a very precise positioning of the device.

However, in case of device protrusion in the left ventricle, the retrieval can be really challenging.

An 81 year-old female with history of severe aortic valve disease (both stenosis and regurgitation) was admitted to the cardiology department to undergo TAVR procedure.

The pre-procedural CT-scan showed mild calcifications involving the aortic valve leaflets and the sinotubular junction. Annular dimension including perimeter, minimum/maximum diameters and area were 75.6 mm, 22/26 mm and 443,9 mm² respectively. The height of left coronary artery ostium from the annular plan was 8.0 mm.

According to the valve anatomy and the low coronary height, an **Acurate Neo 2** (medium size) was chosen.

Figure 1

**Predilatation with a
VACS III 20/40 mm balloon**

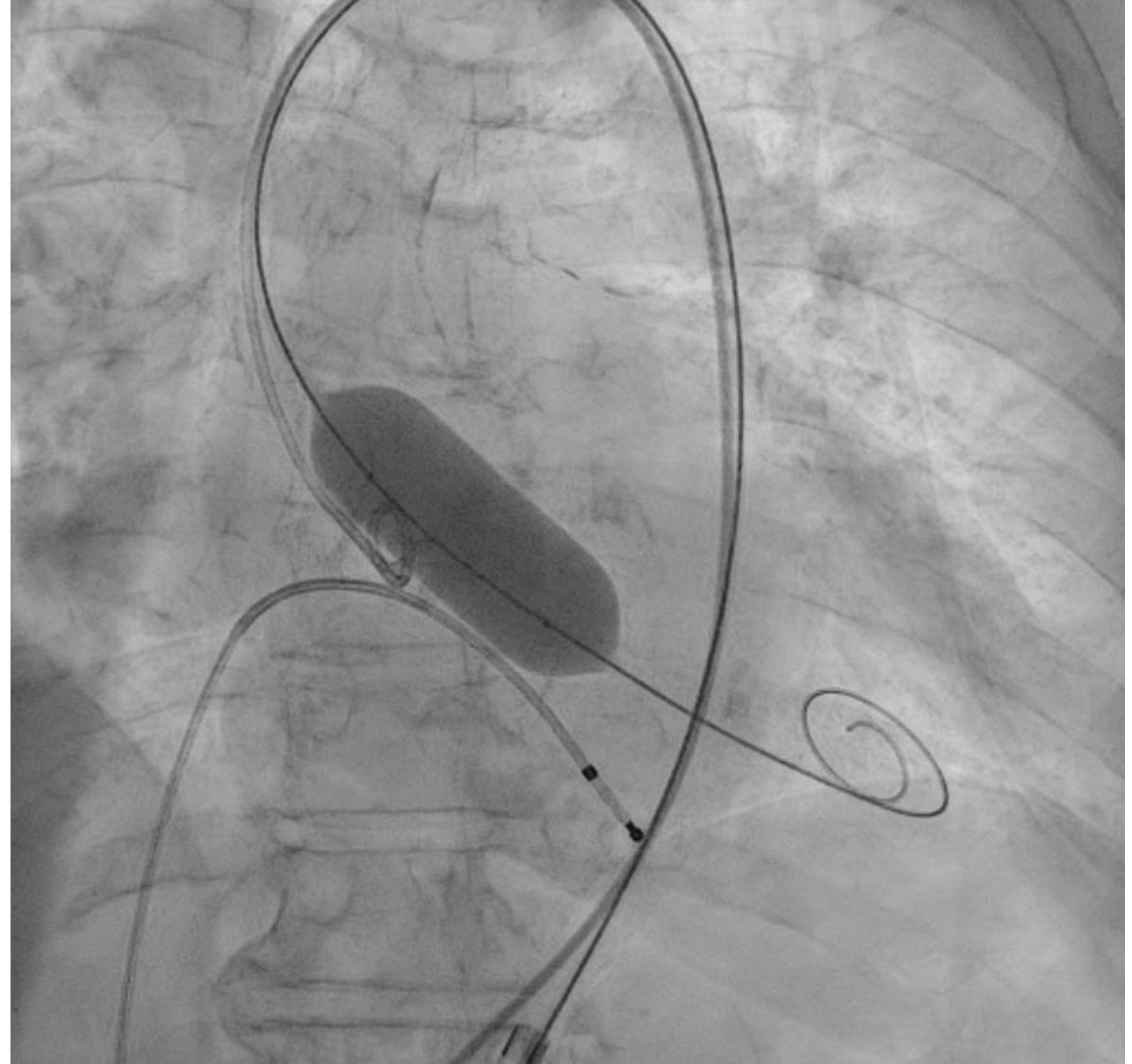


Figure 2

**Acurate Neo 2 M was
advanced at the target level**

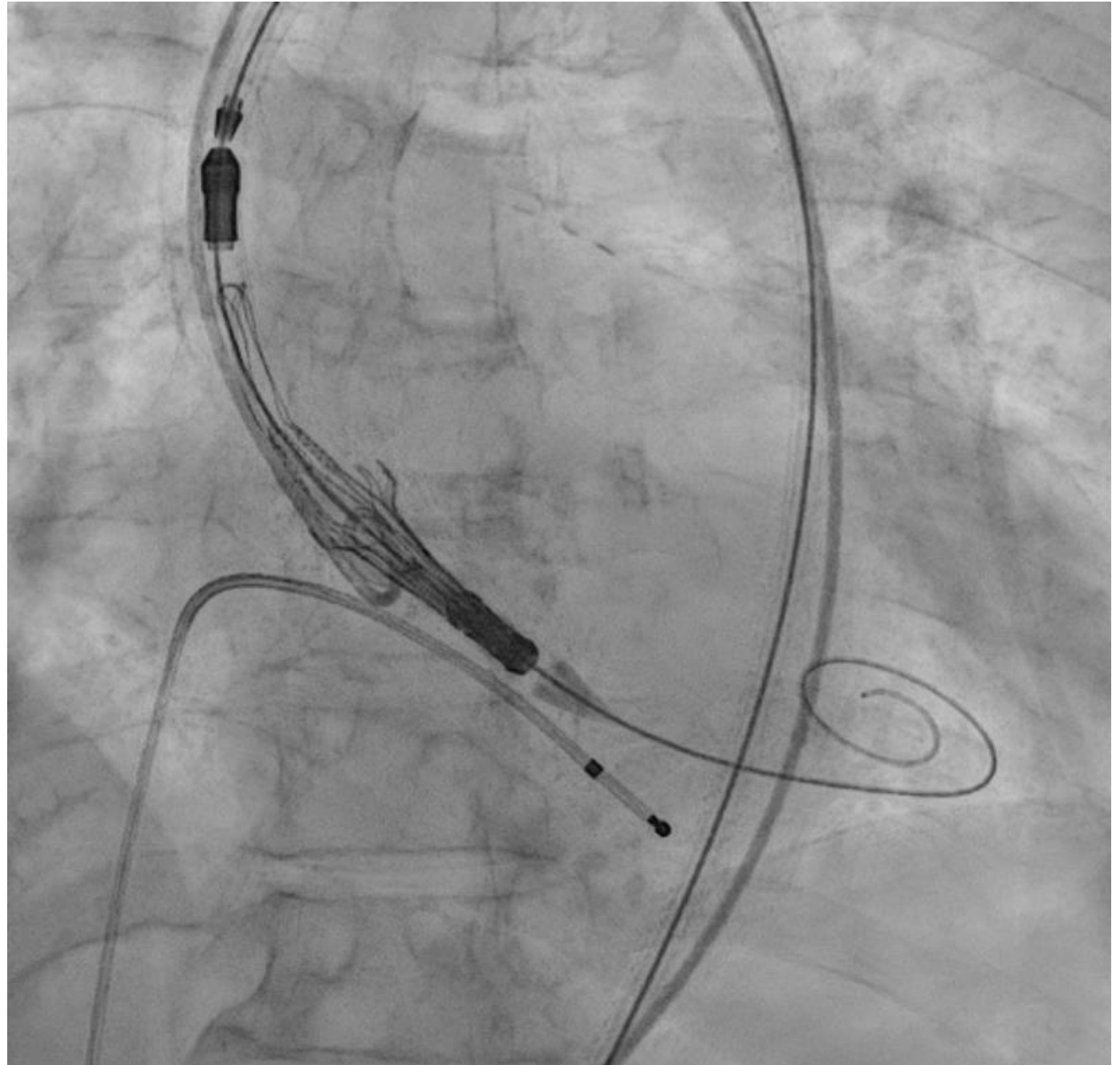


Figure 3

**Incomplete opening of
stabilization arches**



Figure 4

**Acurate Neo 2 partial
protrusion in the left ventricle**

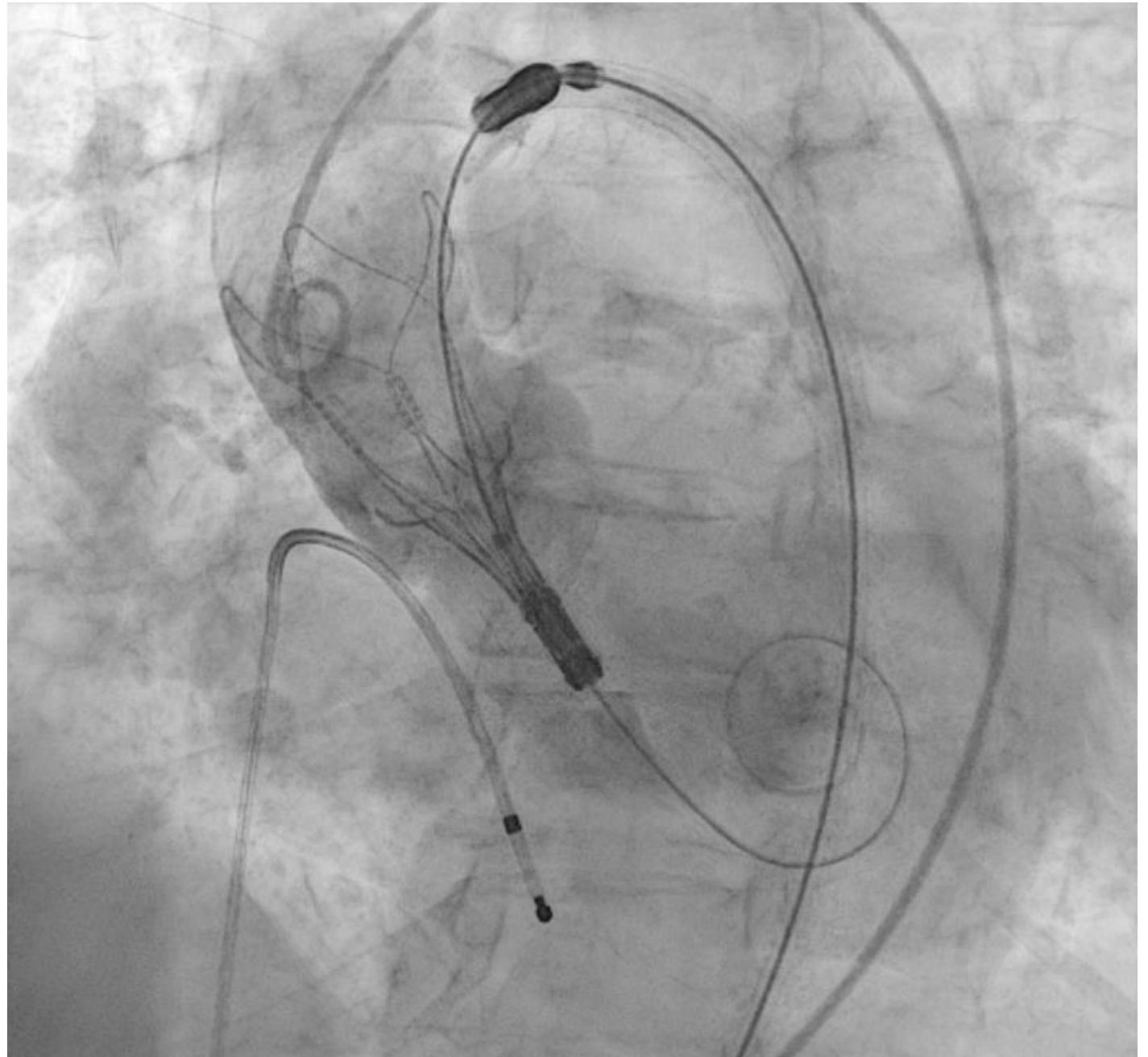


Figure 5

Upper crown trapped by the right coronary cusp (see red flags)

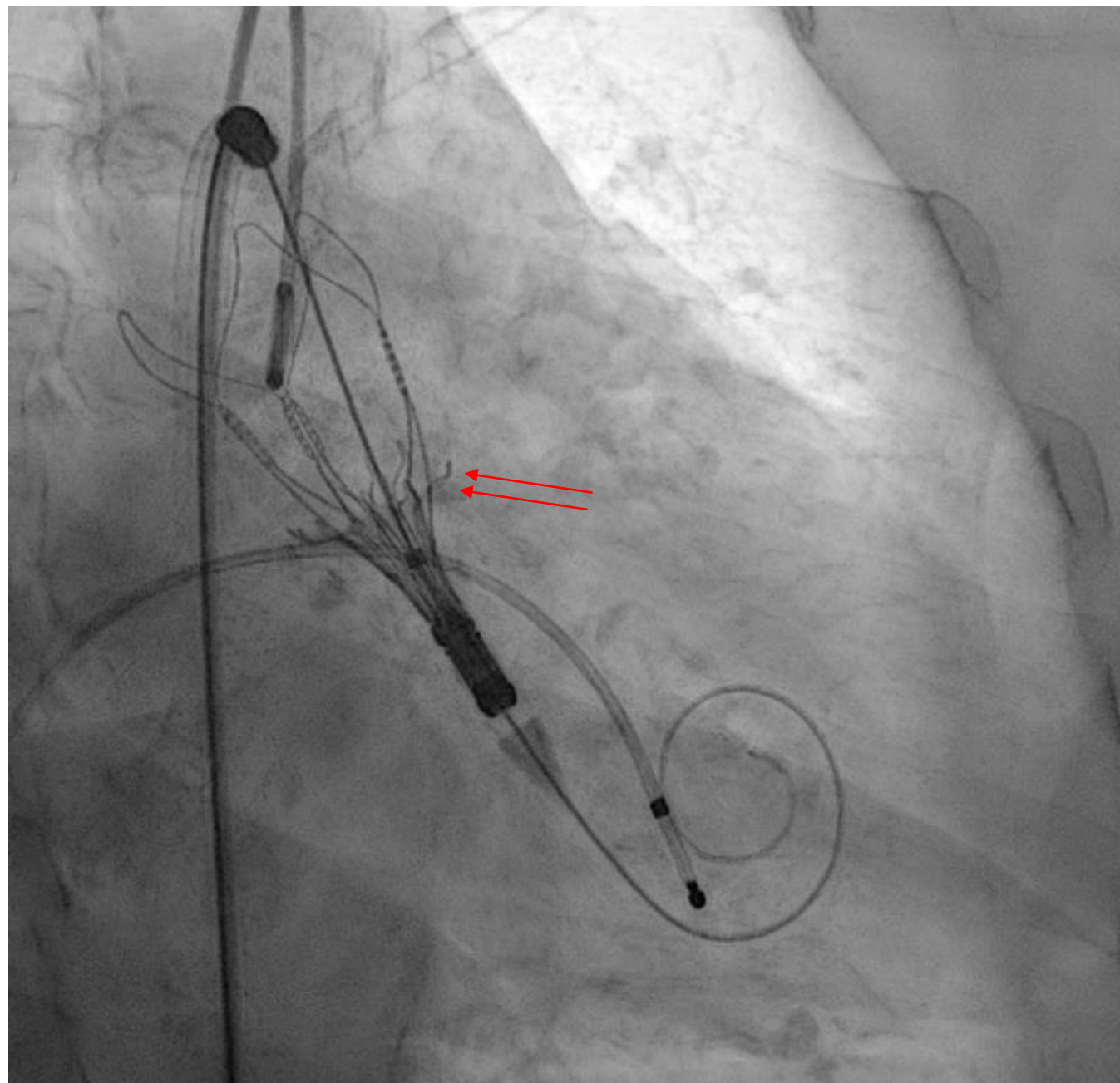


Figure 6

A second stiff 0.035" wire was then advanced beside the Acurate Neo 2 into the left ventricle

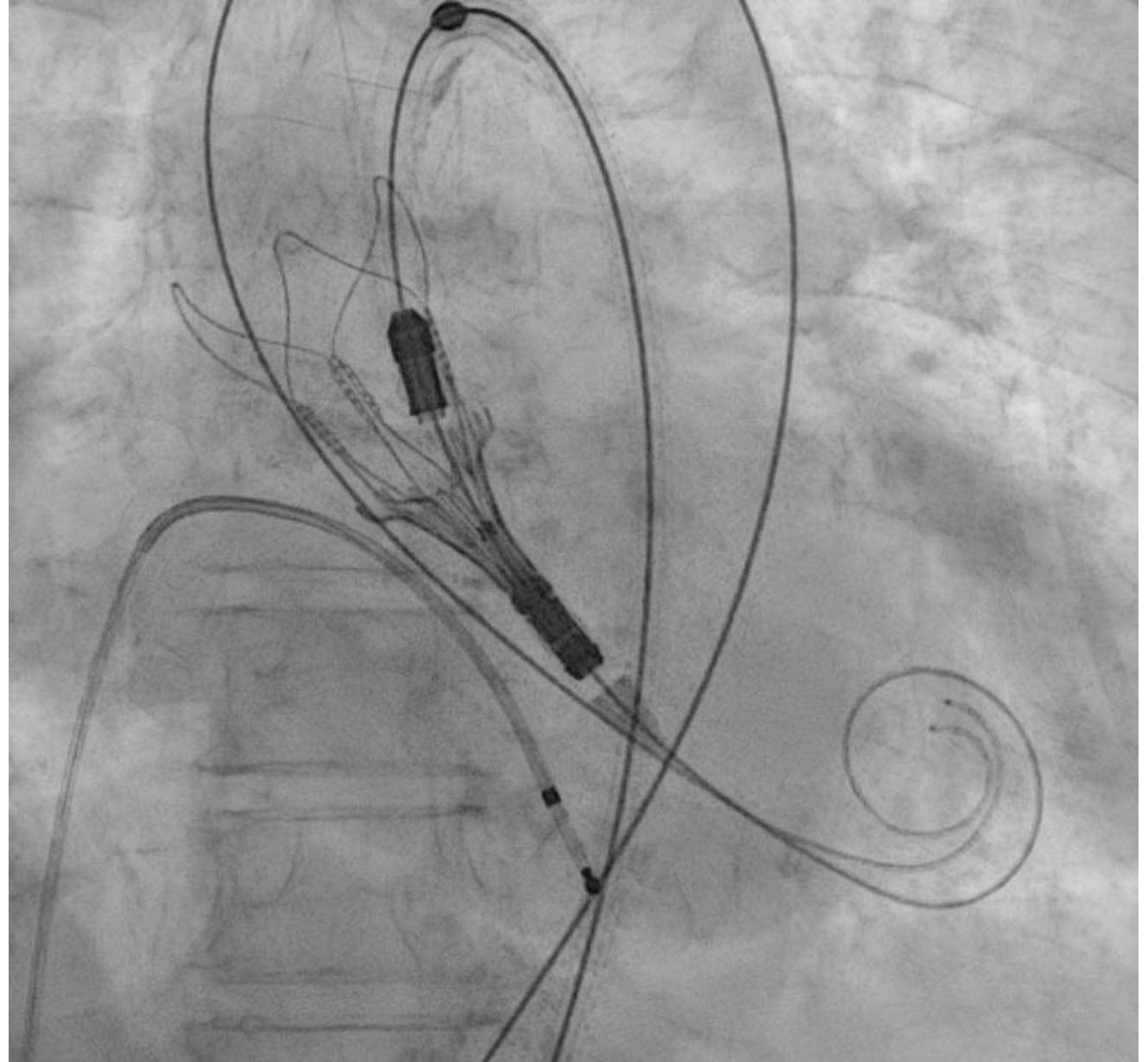
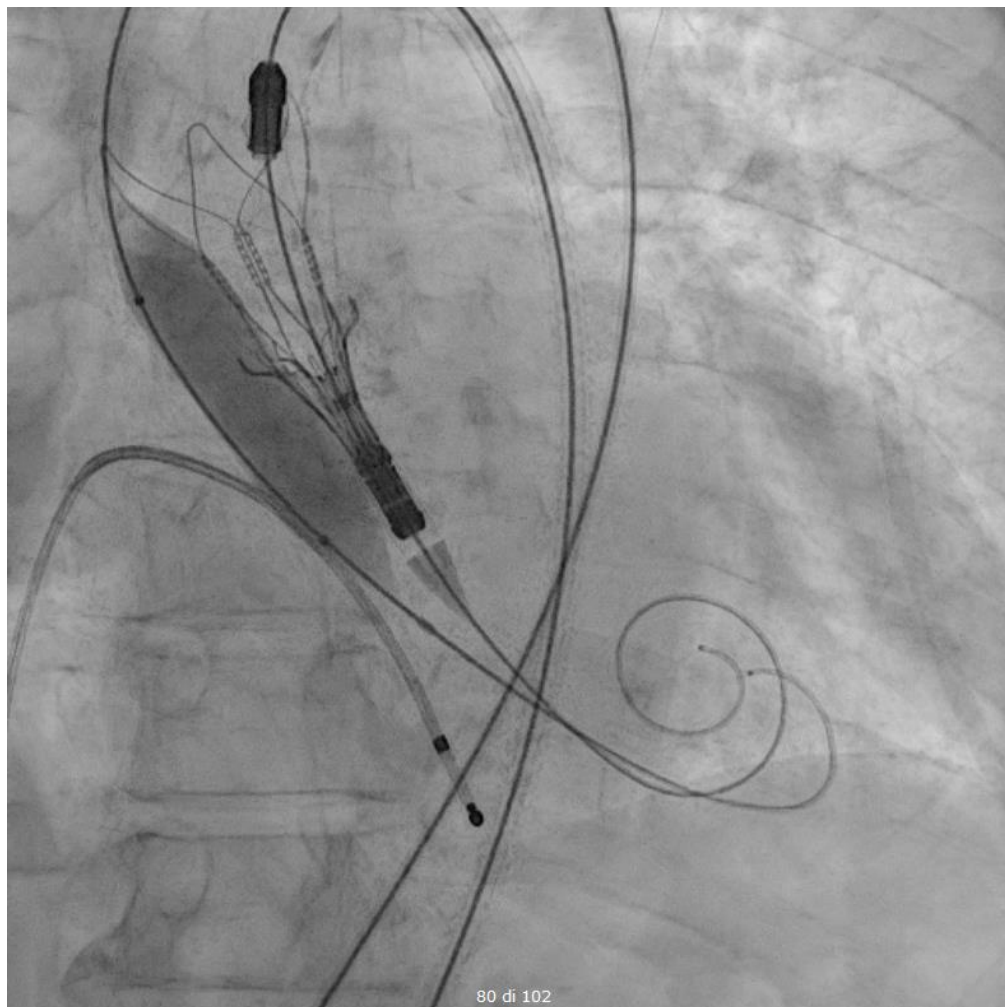
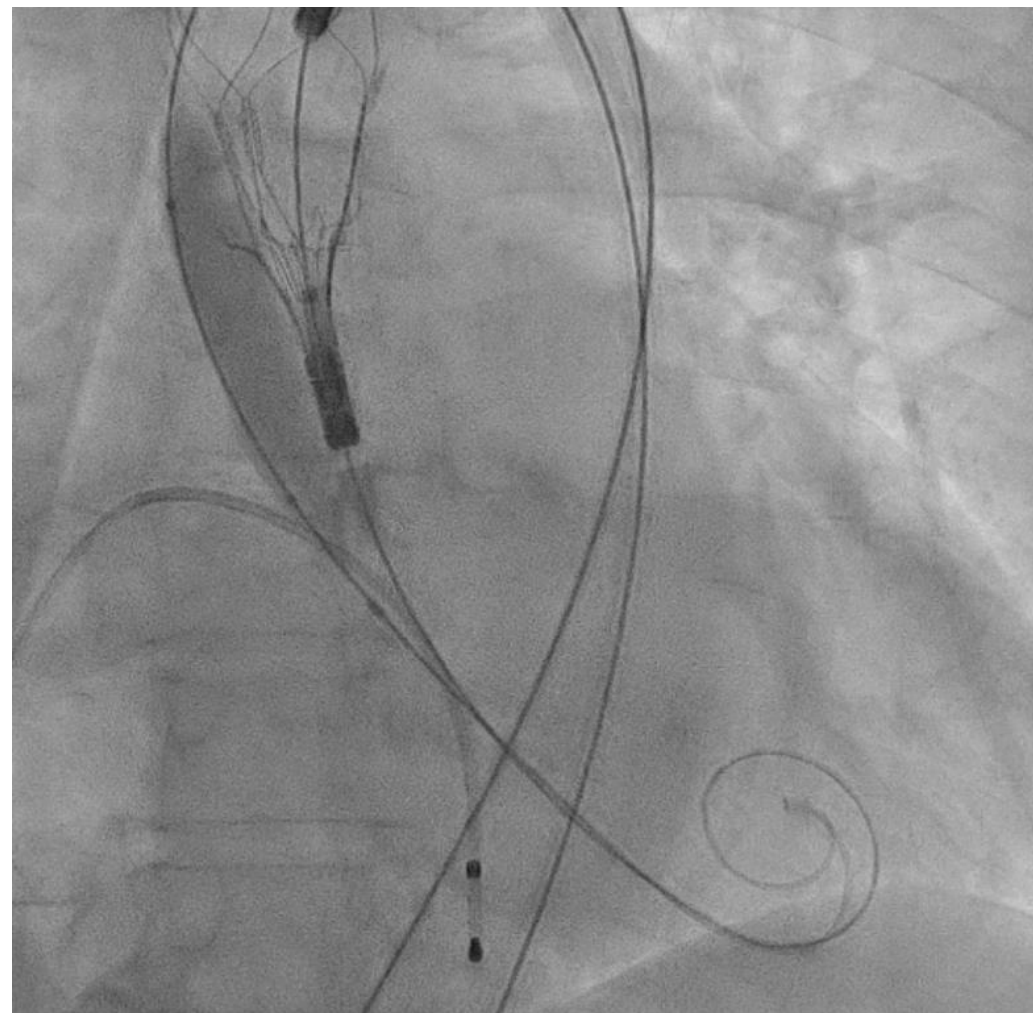


Figure 7



A 14 mm balloon was inflated in order to centralize and retrieve the Acurate Neo 2

Figure 8



Embolization of the valve in the ascending aorta

Figure 9

**A partially opened Acurate Neo II was then advance
across the native aortic valve**



Figure 10

A successful implantation was finally performed



Clinical implications

Although Acurate Neo 2 features allows a precise and stable positioning, valve dislocation can occur.

Perspectives

A balloon-assisted valve retrieval can be a feasible non-surgical option in case of left ventricle dislocation.