

# **TOTAL AORTIC ARCH REPLACEMENT WITH CLASSIC ELEPHANT TRUNK WAS STILL A FEASIBLE TREATMENT FOR ACUTE AORTIC DISSECTION.**

*Nguyen Thai Minh, Nguyen Minh Ngoc, Le Quang Thien*

*Hanoi Heart Hospital*

## **Introduction**

Total arch replacement with classic elephant trunk (TARCET) was a standard treatment for acute aortic dissection (AAD). In the era of TEVAR and hybrid approaches, TARCET was still a good option for certain patients, sometimes with economical reasons. Although it was technically challenging, good results could be achieved with an experienced team.

## **Methods**

In our center, from 2018 to 2023, 52 patients diagnosed with AAD underwent TARCET. The patients with concomitant root procedures (Bentall, David) were also included. Patients with hemiarch procedure or hybrid procedures were excluded. Our TARCET procedure contained following steps: (1) right axillary artery or ascending aorta cannulation; (2) the patients were put in hypothermic state at 28°C for visceral protection; (3) distal anastomosis were made in zone 3 or zone 4, under antegrade selective cerebral perfusion, with a small vascular graft as a CET; (4) the 3 branches of aortic arch was reimplanted with island technique or end-to-end anastomosis.

## **Results**

The mean age was 62.7 years (37-81), 79% was male (41/52). The island technique was performed in 28 patients (54%), and the other 24 patients (46%) underwent end-to-end technique. 8 patients (15%) had aortic root procedure (6 cases with Bentall procedure and 2 cases with David procedure). Stroke rate was 9.6% (5/52), and 2 patients needed hemodialysis due to renal failure. 4 patients (7.6%) needed reop due to severe bleeding. Hospital mortality was 5.7% (3/52), with one case of distal anastomosis rupture, one case of intestinal

necrosis, and one case of sepsis shock. In the mean following time of 3.7 years, there was 2 late death (3.8%).

## **Conclusions**

In the era of TEVAR and hybrid procedures, TARCET was still a good standard treatment for AAD with positive outcome.

*Keywords: Total arch replacement with classic elephant trunk, acute aortic dissection*