

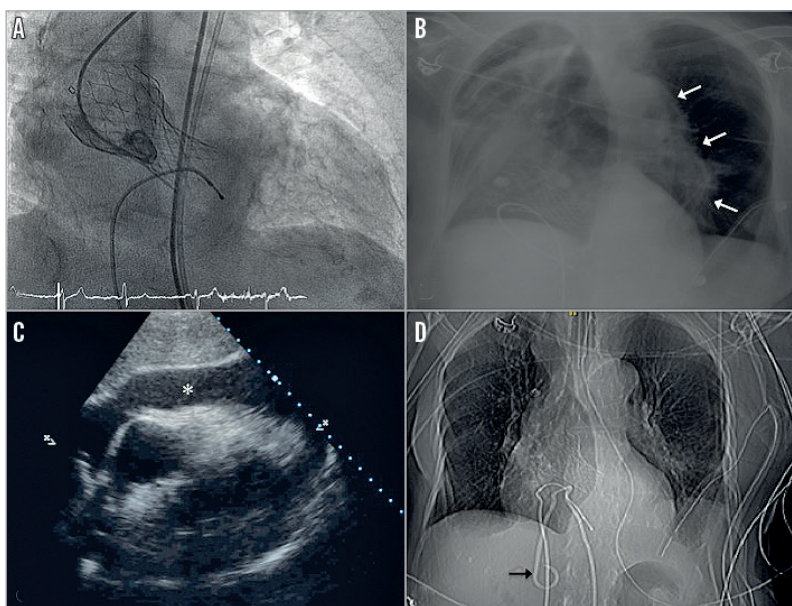
# Transcatheter aortic valve implantation: the importance of an experienced multidisciplinary team



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*This paper also includes supplementary data published online at: [http://www.pcronline.com/eurointervention/104th\\_issue/151](http://www.pcronline.com/eurointervention/104th_issue/151)*



Transcatheter aortic valve implantation (TAVI) has emerged as a new therapeutic option for patients deemed too high-risk for surgery. A significant learning curve has been reported. Not only the implantation but also the subsequent management are crucial. We present an 83-year-old female with severe symptomatic aortic stenosis and a logistic EuroSCORE of 28%, who underwent successful transfemoral CoreValve® (Medtronic, Minneapolis, MN, USA) implantation (**Panel A, Moving image 1, Moving image 2**). One day after the procedure, she developed a third-degree atrioventricular block. A temporary pacemaker lead was inserted. The procedure was difficult and many intracardiac manipulations were needed. Four hours later, a complete loss of ventricular capture was observed, so she underwent an urgent repositioning. Once again it was difficult and the physician decided to use a subclavian vein access. Minutes later the patient developed symptomatic hypotension, sharp chest pain and dyspnoea. An anteroposterior chest X-ray showed a left pneumothorax with lung collapse (**Panel B**). Myocardial perforation was also suspected and a bedside echocardiography revealed a large pericardial effusion with

signs of tamponade (**Panel C**). An emergent pericardiocentesis was performed; however, the patient did not improve as expected and a computed tomography scan was done. It showed the drainage catheter inadvertently inserted into the inferior vena cava (**Panel D**). Despite emergent radioscopically guided repositioning of the catheter, the patient died.

The growing experience with TAVI procedures has increased the implantation success rate and in-cathlab complications are reducing. However, procedure-related complication risks do not end after a successful implantation but rather continue during the post-implantation period. An experienced multidisciplinary team is essential.

## Conflict of interest statement

The authors have no conflicts of interest to declare.

## Supplementary data

**Moving image 1.** Angiography of CoreValve position after successful implantation.

**Moving image 2.** Trivial aortic regurgitation after TAVI.

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