PERCUTANEOUS VALVE IMPLANTATION – CASE REPORT

Euroanaesthesia
THE EUROPEAN ANAESTHESIOLOGY CONGRESS

Sampaio, A.*, Lima, M.*, Norte, G.*, Silva, C.*, Marques, A.*, Cuervo, M.**

*Anaesthesiology Resident **Anaesthesiology Consultant

Anaesthesiology Department of Centro Hospitalar e Universitário de Coimbra (CHUC)

Background

- ❖ Percutaneous pulmonary valve implantation was the first percutaneous intervention in the treatment of regurgitant valve disease in humans
- ❖ Residual right ventricular outflow tract lesion after correction of congenital heart disease is the most common indication for pulmonary valve implantation
- ❖ Tetralogy of Fallot is one of the most common congenital heart lesions in this group

47-year-old female

Prior medical history

- ❖ Tetralogy of Fallot corrected in 1987 and reoperated in 1992

Angiography of the right ventricular outflow tract

- ❖ Calcified homograft
- ❖ Severe pulmonary regurgitation

Percutaneous pulmonary valve implantation

Valve migration to the right ventricle

Hemodynamic room

- ❖ Monomorphic VT with pulse
- ❖ 4 synchronised shocks and a loading dose of amiodarone – conversion to sinus rhythm
- ❖ Noradrenaline infusion was initiated

Operating room

- ❖ Conscious and oriented
- ❖ Hemodynamically stable under noradrenaline perfusion
- ❖ A balanced general anaesthesia was performed (fentanyl, etomidate, rocuronium and sevoflurane)
- ❖ **Percutaneous valve prosthesis was removed and a bioprosthesis was surgically implanted in pulmonary position**
- ❖ She remained hemodynamically stable and no complications arose

Third postoperative day

- ❖ Dyspnoea and decreased saturation
- ❖ Reintubated and mechanically ventilated
- ❖ CPR – Unsuccessful promptly resuscitation manoeuvres

Discussion

- ❖ Percutaneous implantation of cardiac valves
 - Safe and effective non-surgical therapeutic
 - High success rate
- ❖ Embolization or valve migration is one of the possible complications of this procedure and may require emergency surgical treatment
- ❖ Should this type of procedures be performed in medical centres that can provide prompt cardiac surgery support?