

We are Still Learning from Death: After CPR, Balloon Expanding Valve (Intuity Aortic Valve) Revealed to be in Position

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ABSTRACT

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Introduction

Patients with high predicated risk undergo TAVI as an alternative treatment to surgical valve replacement. Among several possible complications it has been documented a TAVI implanted valve failure after CPR. Recently rises the AVR using a balloon expandable valve system (INTUITY Elite) as an alternative procedure for similar group of high risk patients. We present a case of Aortic valve replacement (AVR) with a balloon expandable valve system (INTUITY Elite) which showed a very satisfactory alternative without Valve dysfunction after CPR.

Case Report

In August 2015, a 76 year old male was admitted to our hospital with sever Dyspnoea. The patient suffered from coronary heart disease which was successfully with PTCA and a Stent implantation in Left anterior descending coronary artery (LAD) with currently a long-term Stent patency without any new intervention's indication. The echocardiographic findings included severe aortic valve

stenosis, aortic valve regurgitation and sever Mitral valve regurge. The patient was referred to our department for the surgical management. The decision was made for an urgent procedure that included aortic valve replacement using a balloon expanding valve system (INTUITY Elite) and Mitral valve annuloplasty using (CE- Physio II Ring). After a complication-free operation and postoperative course the patient was transferred to intermediate care unit in very stable status in the 1st post-op day. At the same night, because of a phase of ventricular tachycardia a Cardio pulmonary resuscitation was begun for 15 minutes. To exclude neurological deficits a Brain-CT was done, which didn't show any intracranial hemorrhage, ischemia or skull-fracture. A Thoracic-CT was done which revealed a good positioned aortic valve, Mitral ring and irrelevant pericardial effusion (Figure 1). On the 4th post-op day, the patient showed a positive Babinski-reflex bilaterally. A Brain CT showed a fresh occipital infarct bilaterally, cerebrally bilaterally and pontin. On 15th post-op day the patient passed away.



Figure 1: CT Picture showing the balloon expanding valve system in position after cardiopulmonary resuscitation.

Conclusion

After the cardiopulmonary resuscitation period of 15 minutes; the aortic valve prosthesis (INTUITY Elite) was appeared to be in a position in comparison to the documented dislocation or distortion of TAVI prosthesis after CPR [1,2]. According to our experience in the period from 2012 – 2014 we haven't documented any case of valve dislocation from those who underwent through AVR using balloon expanded valve system (INTUITY Elite).

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