J Clin Exp Cardiolog 2016, 7:12(Suppl 1)
http://dx.doi.org/10.4172/2155-9880.C1.060

15th World Cardiac Surgery & Angiology Conference

BioValsalva or BioIntegral: Which biological aortic valved conduit has a better hemodynamic performance?

Ayman Raweh
Klinikum Dortmund, Germany

The aortic valved prosthesis is a reliable solution to repair the aneurysm in aortic root and ascending aorta with involved aortic valve. The introduction of biological valved conduits brought important benefits to a large group of patients suffering from the anticoagulation therapy. Two of the most commonly used pre-sewn stentless biological conduits are BioValsalva™ and BioIntegral BioConduit™. As a result of the lack of comparative studies between the different biological valved conduits, there was a need to review the midterm hemodynamic performance of these two conduits. Between July 2008 and June 2014, a total of 55 patients underwent aortic root replacement using a BioValsalva conduit (n=27) or a BioIntegral conduit (n=28). The median echocardiographic follow-up for the BioValsalva group was 44.0 months compared with 8.4 months for the BioIntegral group. The echocardiographic follow-up for the BioIntegral group was shorter because of the later introduction of BioIntegral prosthesis to the market. It was hypothesized that the BioIntegral prosthesis with no sewing ring will provide benefits in valve hemodynamics; however, these potential benefits were not observed when compared with the BioValsalva prosthesis in our echocardiographic follow-up. The effective orifice area in the BioValsalva group was 1.85 cm^2 compared with 1.80 cm^2 in the BioIntegral group (p=0.24). The mean pressure gradient in the BioValsalva group was 11.0 mm Hg compared with 11.5 in the BioIntegral group (p=0.82). In conclusion, we did not observe a significant difference in the outcome between the two biological valved conduits and both of them had excellent outcomes.

AyRaweh@gmail.com

Permanent pacing in a premature infant with isolated congenital complete atrioventricular block: A case report

Yuni Twiyarti Pertiwi
Padjadjaran University, Indonesia

Congenital complete atrioventricular block (CCAVB) is a rare and potentially lethal disease with an estimated incidence of 1 in 15.000 to 20.000 live born infants. Most of the patients with CCAVB have structurally normal hearts, referred to as an isolated CCAVB. We present the case of a premature infant with CCAVB who underwent implantation of a permanent pacemaker. The male infant was born at 33 weeks of gestation and weighed 2150 g. Repeat fetal ultrasound assessment before demonstrated fetal cardiomegaly increased at 30 weeks gestation. The decision was made to deliver the baby by cesarean section at 33 0/7 weeks gestation. After birth, the infant showed respiratory distress despite antenatal corticosteroid therapy. There were no clinical signs of hydrops fetalis. The heart rate ranged between 40 and 50 bpm. An electrocardiogram showed that the rate of P wave was 120 bpm and the rate of QRS wave was 50 bpm. The chest X-ray demonstrated dilated heart and echocardiogram showed dilated chambers, small non-significant PDA with left to right shunt, no ASD or VSD, and satisfactory contracted ventricles. Respiratory problem was resolved after supportive treatment with temporary pacing. He underwent successful implantation of a permanent transepicardial pacemaker (VVIR mode, stimulation rate 120 bpm, output 1.5 mV and sensitivity 2.6 mA). A unipolar epicardial lead was used and the pulse generator was implanted in a pocket made under at the anterior rectus sheath. Surgery was performed without any complications. There was no respiratory problem associated with pacemaker implantations in the abdominal wall. He was discharged at the age of 31 days with a weight of 2350 g. At the one-year follow up, he remains in well condition without any complications. We have reported a case of a CCAVB with successful implantation of permanent pacemaker.

yunitwi@gmail.com