

MP3-6

Safety and Efficacy of Percutaneous closure of ventricular septal defect with Amplatzer duct occluder II in small children and adults

*Kanaan M., Schubert S., Assa S., Schmitt K., Peters B., Berger F.
German Heart Institute Berlin. Berlin- Germany*

Background: Nonsurgical closure of congenital ventricular septal defects (VSD) has become increasingly acceptable with the availability of different occlusion system. Percutaneous and transcatheter device treatment is used for perimembranous and muscular defects. Atrio-ventricular block (AVB) remains the most troublesome complication of device closure. The aim of this study is to describe our experience with closure of ventricular septal defects (perimembranous and muscular) using the Amplatzer Duct Occluder II (ADO II) as an "off-label" approach.

Methods: Between 2004 and 2012 transcatheter closure of 31 VSD (20 perimembranous, 10 muscular VSD and 1 ruptured sinus valsalva) with ADO II was undertaken in patients between 3 months and 55 years of age and with a body weight ranging from 4 to 105 kg in our institution.

Results: In 29 of 31 procedures the defect was successfully closed (93,5%) without any significant complications. No increase of aortic and tricuspid valve regurgitation in any case after procedure.

Small residual shunts were observed immediately after the device implantation, but disappeared during a median follow-up period of 38 months (0,4-63) in 27 of 31 patients. There was no incidence of AV-block or other conductance abnormalities during implantation or follow-up.

Conclusion: The ADO II device is safe and effective for transcatheter VSD closure, but still it is a "off-label" use. After long-term follow-up in a large number this device may also admitted for VSD-closure in the future.