



**MACEDONIAN  
CONGRESS of  
CARDIOLOGY**

**JUNE 4 - 7, 2014**

**SKOPJE, MACEDONIA**



MACEDONIAN SOCIETY OF CARDIOLOGY



UNIVERSITY CLINIC OF CARDIOLOGY



EUROPEAN SOCIETY OF CARDIOLOGY

**ABSTRACT  
BOOK**

[www.mscardiology.org.mk](http://www.mscardiology.org.mk)



**ALKALOID  
SKOPJE**

*Health above all*

[www.alkaloid.com.mk](http://www.alkaloid.com.mk)

treatment was done. Percutaneous transcatheter approach was used with direct implantation of covered stent on the coarctated segment closing the PDA at the same time. The pressure gradient between the ascending and the abdominal aorta was equalized after the intervention with good clinical and echocardiographic status even three years later.

In the second case we present 3-year old girl presenting with repetitive pulmonary infections, dyspnea, high blood pressure and weak arterial pulsations over the lower limbs. After echocardiographic suspicion, MSCT was performed revealing severe coarctation of the aorta with moderate to severe PDA and consecutive pulmonary volume overload. Percutaneous transcatheter balloon dilatation was performed with a drop of the trans aortic gradient for over 50%. After, a transvenous retrograde approach was used to close the PDA with the implantation of an asymmetrical ventricular septal defect occlude with equaling of blood pressure curves in ascending aorta and femoral artery. Twenty four hours later the patient was discharged with good clinical and echocardiographic status. Further follow up will be needed. Percutaneous transcatheter intervention for combined aortic coarctation and patent ductus arteriosus is safe and effective procedure with minimal invasiveness and short hospitalization period.

Keywords: interventional treatment, patent ductus arteriosus, aortic coarctation

50

Abstract No. 165

Theme: **interventional cardiology**

Country: **Macedonia**

### **Navigation through a challenging radial anatomy**

**Boshev M<sup>1</sup>, Kedev S<sup>1</sup>, Antov S<sup>1</sup>, Kostov J<sup>1</sup>, Pejkov H<sup>1</sup>, Kalpak O<sup>1</sup>, Spiroski I<sup>1</sup>**  
**University Clinic of Cardiology Skopje, Macedonia<sup>1</sup>**

Introduction: Transradial access (TRA) has demonstrated several significant benefits over the transfemoral access (TFA). This has led to an extensive experience with TRA worldwide. The benefits of TRA, however, are tempered by an increase in operator's technical demand. One aspect of the TRA that requires serious technical consideration is the occasional difficulty encountered when navigating the vasculature between the point of access (radial artery) and the aorta. Materials and methods: Performing retrograde angiography of the forearm via TRA is the first important advice we recommend in order to get a complete picture of its vascular network and prevent possible complications. Arterial impediments can be categorized in congenital, functional, traumatic, and acquired. Angiography can clearly delineates the cause and arterial level of the impediment and allows creating a specific treatment plan. Some of the techniques to overcome the obstacles include use of hydrophilic introducers, spasmolytic cocktails, different kinds of hydrophilic wires, low profile catheters as well as specific techniques like "push-pull" and "clockwise-counterclockwise" maneuvers.

Conclusion: A default TRA is feasible in routine practice after appropriate operator's training which is associated with certain learning curve. Although right TRA cases can be usually successfully completed, they are extremely challenging and in some cases alternative arterial access site (contralateral TRA, transulnar – TUA, or TFA) may need to be considered. Better results with TRA are expected with increasing procedural volume of operators.

Keywords: transradial access, radial artery, challenging anatomy