International Journal of Recent Advances in Multidisciplinary Topics
Volume 4, Issue 3, March 2023
https://www.ijramt.com | ISSN (Online): 2582-7839

# PDA Stenting in a One Day Baby from Venous Route

Asotra Sanjeev[1], Bisht Dinesh[2*], Ritesh Kumar[3], Thakur S. Preetam[4]
[1,2,3,4]*Indira Gandhi Medical College and Hospital, Shimla, Himachal Pradesh, India*

***Abstract*: We had a baby one day old having Unbalanced AVSD, large primum ASD and large inlet VSD with small LV, no AV regurgitation, DORV and severe PS with only 2 mm ante grade flow. The PDA got shrunk on 18 hrs of life and baby desaturated so Prostaglandin infusion was started. Baby was taken for PDA stenting through right femoral artery route. However despite using JR and cut pigtail 5 F, the PDA could not be crossed using coronary BMW wire. So right femoral vein was entered with 5F JR and 0.18 BMW 350 cm coronary wire was crossed through the PDA and parked in RPA with the help of microcatheter. Stent DES 3.5x12mm was deployed in the vertical PDA and good flow in branch PAs was achieved.**

***Keywords*: patent ductus arteriosus, JR-Judkins right, RA-right atrium, RV- right ventricle.**

## 1. Materials

5F radial sheath, Judkins right 5 F diagnostic Catheter, pigtail 5F diagnostic Catheter, 5F Judkins right diagnostic Catheter, BMW 0.18 coronary wire, 180cm and 350 cm, microcatheter Fine cross, Resolute onyx 3.5x12mm drug eluting stent.

## 2. Methods

Baby weight was 2.6kg and boluses of ketamine sedation were used under Face mask oxygen, baby breathing spontaneously (No mechanical ventilation).

After taking 5F radial sheath Right femoral vein and artery were cannulated. Arch angiography was done using 5ml hand injection in dead lateral view. 5 F guide JR was used to hook the PDA from Arterial side with coronary wire. After multiple attempts 5F cut pigtail was used but PDA could not be entered.

So, 5F JR was advanced from right femoral vein to RA, RV and then to Aorta (as there was DORV). Small 2ml hand injection was given in the arch and vertical PDA was delineated. 360 cm coronary wire was taken in microcatheter and advanced in the JR into the PDA using advance and support technique. Finally, RPA was entered and the vertical PDA got straightened. It was measured 12mm. As weight was 2.6 kg 3.5x12mm balloon mounted stent was taken and balloon was inflated along with stent using inflation system till 10 atmosphere Pressure for 10 seconds. Post stent deployment hand injection was taken which should good filling of both branch Pas with no stent migration and jailing.

Baby was breathing spontaneously and saturation which was 70 percent pre-procedure became 90 percent. Baby was Hemodynamically stable and was given heparin infusion and aspirin and clopidogrel overlap, antibiotic, oxygen and discharged in 5 days.

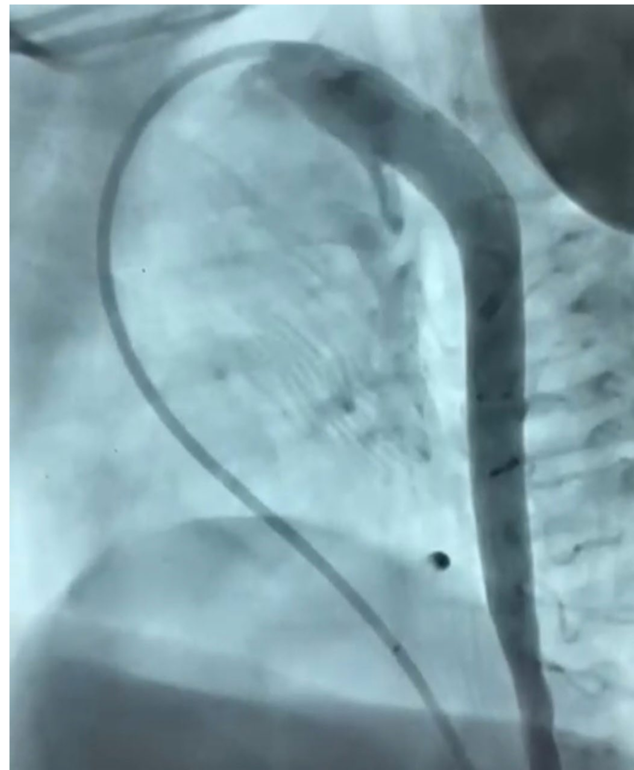

Fig. 1. RFA to IVC to RA to RV to Aorta (DORV) to Arch to vertical PDA

*Corresponding author: drdineshsinghbisht@yahoo.co.in

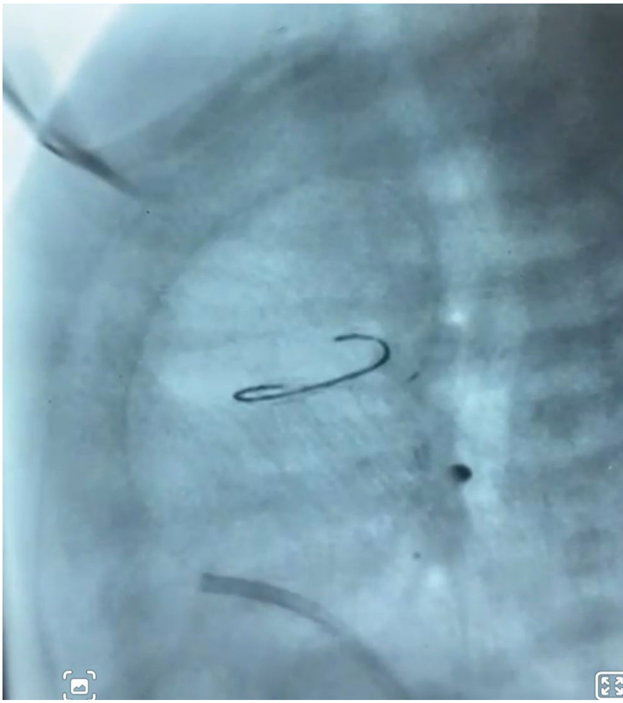

Fig. 2. Coronary wire in PDA

## 3. Conclusion

Axillary and carotid approaches to PDA stenting are technically difficult in a small baby, so femoral artery is usually used but, in our case, report we have used femoral Venous access which is safe and can also be used.