

Distal Migration and Successful Retrieval of a Broken Umbilical Venous Catheter in a Neonate

Umbilical venous catheterization is one of the fastest methods of deep venous access in neonates, but may be associated with complication [1]. A 3.5 FG size umbilical venous catheter (UVC) was inserted in a male baby with birthweight of 2360 g on day 1 of life for administration of fluids for treatment of hypoglycemia. Accidentally, on day 3, the catheter broke during removal, and part of the catheter migrated to heart. Attempt of removal of the broken part of UVC by laparotomy was unsuccessful. The upper end of broken UVC was confined within both right atrium and left atrium and lower end was lying in IVC (**Fig. 1**).

On day 5 of life, the catheter it was removed under fluoroscopic guidance by percutaneous approach under general anesthesia. It was removed by pediatric cardiology team transfemorally through a 4 Fr multipurpose A2 catheter with help of a 5 Fr sheath and a 15 mm Gooseneck snare. The UVC was held just proximal to the tip and snared from the superior vena cava during retrieval. The baby was discharged from hospital in healthy state.

Normally UVC Insertion is a very safe procedure, but complications like infection, vasospasm, vascular perforation, thrombosis, embolism (air, thrombus) [1], and catheter migration may occur. Many cases of broken UVC in neonates of various gestational ages and birthweights have been reported [1,2]. The removal of catheter in these reported cases was documented surgically or by different percutaneous approaches (snaring or biopsy forceps) [1-3]. Availability of emergency interventional pediatric cardiology service can be life saving for such rare but life-threatening complications of simple procedure like umbilical venous catheterization in neonates.

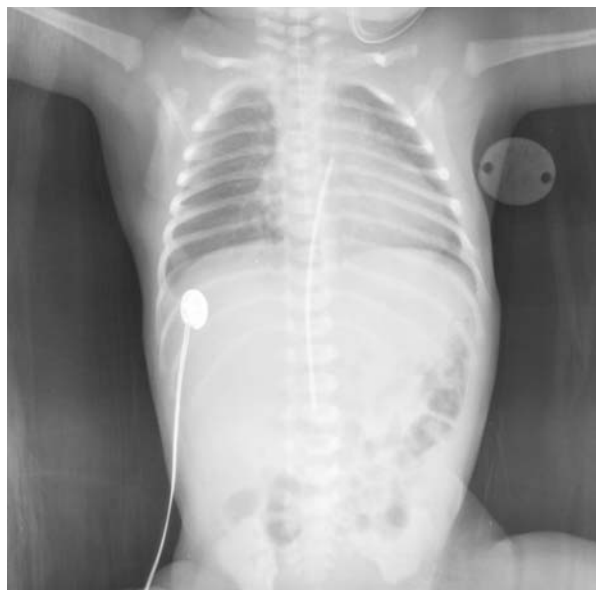


FIG. 1 Migrated UVC with upper end within heart and lower end in inferior vena cava.

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