“Umbilical venous catheter (UVC) related extravasation is an under recognised yet potentially catastrophic complication.” Saboo et al (2014).

Reference:

Umbilical venous catheter (UVC) related extravasation http://ctt.ec/i8e4m+ @ivteam #ivteam

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Abstract:
INTRODUCTION: Umbilical venous catheter (UVC) related extravasation is an under recognised yet potentially catastrophic complication. (1) A series of near fatal UVC extravasations prompted a retrospective study of UVC’s placed between April 2011 and July 2013.

METHOD: All extravasations diagnosed clinically or by ultrasound with a UVC in situ underwent root cause analysis looking at placement, infusions imaging, symptomatology, and outcome after treatment. A simulated access workshop was piloted in September 2012
and posters addressing measurement, radiology and best practice were implemented in April 2013.

RESULTS: In 2012, 161 UVC’s were placed, of which 7 extravasated (4.3%). In 2013, 3 cases of extravasation occurred till June with no further cases to date. An analysis of 16 cases reveals 100% were double lumen catheters. 87% had TPN running through them. In all the babies, the UVC tip was well below the diaphragm at the time of extravasation. 25% had multiple attempts at UVC insertion. 69% babies had inotropes and/or sodium bicarbonate administered through the UVC. 20% of babies had no symptoms and in the remaining cases symptoms were subtle and nonspecific. 2 cases were near fatal.

CONCLUSION: The majority of UVC extravasations were associated with hypertonic solutions running through catheters in a low position where blood flow is slower predisposing to this complication. Symptoms can be subtle necessitating a high index of suspicion. Early ultrasound is key and prompt catheter removal results in spontaneous improvement. A quality improvement exercise involving simulated umbilical access and posters to highlight best practice and complications have helped reduce this complication.


Other intravenous and vascular access resources that may be of interest (External links – IVTEAM has no responsibility for content).