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## **Approach to long-term home parenteral nutrition intravenous catheter – A case study**

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Cuffed tunnelled feeding lines are placed usually in the internal jugular or subclavian veins for home parenteral nutrition (HPN). A large proportion of these patients require HPN because of surgical complications and are malnourished and in need of further intervention. However, there are a small proportion of them who have short gut due to massive resection or recurrent resection. The only option available to these patients is to be on long-term total parenteral nutrition (TPN) or small bowel transplant. A case of a 68-year old-female who has been having TPN for 25 years and the management of the feeding line are discussed. The primary diagnosis is Crohn's disease and the secondary diagnosis is short gut due to multiple resections from surgical complications.

The patient has been on HPN for 25 years but required a line change due to a split in the line, which was repaired but unsuccessful. She had had only one line since the insertion through a cephalic vein cut down. Thus, an attempt was made to give her a new line. It was difficult to remove the existing line due to severe calcification and hence a new line was inserted in the right internal jugular. The old line could not be removed and any attempt to clamp it would fracture the line, making it difficult to obtain haemostasis. Thus, a small area of the line was made free of Ca, which made it possible to apply two ligatures safely to the line.

Most patients may have their feeding catheter line changed after a couple of years for various reasons, such as infection, blockage, thrombosis or rupture. However, there are patients with good catheter care who have had their line >10 years. There are no particular guidelines as to how often an intravenous catheter should be changed. The most likely reason for this situation is because patients are probably now surviving longer on HPN. An attempt to remove the catheter in the particular case discussed would have put the patient at risk of further venous damage leading to life-threatening haemorrhage. Hence, it was decided to leave it behind. This solution in itself has implications, since that side cannot be used again for venous access for HPN. In addition, it will be a source of colonisation for bacteria when the patient has a bacteraemia during other infections. Loss of venous access is also an indication for bowel transplant. A note has to be made whether it was dangerous to remove the line since it was placed in the cephalic vein, making dissection into the subclavian vein more difficult. The practice has changed now to insertion of these lines into deep veins directly under ultrasound guidance. This practice also raises the question about whether HPN catheters placed in the cephalic vein should be changed after a certain number of years.

A more detailed study of a larger number of patients is required to understand and suggest a practice for changing the intravenous feeding catheters for HPN.

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