

P128-Buried peritoneal dialysis catheters: A single centre experience

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Introduction

Timing of peritoneal dialysis catheter insertion is challenging and controversial. Early dialysis starts have shown no medical benefit and can lead to unnecessarily early disruption to patients' lifestyles. Delaying catheter insertion until a patient imminently needs to start dialysis can decrease the patient's ability to tolerate the catheter insertion procedure and in some cases lead to the requirement for temporary haemodialysis. One approach to allow prompt initiation of peritoneal dialysis is to use a pre-emptively inserted buried peritoneal dialysis catheter, which is externalised at the time of planned dialysis start. A buried peritoneal dialysis catheter is inserted at least 6 weeks prior to expected dialysis start, and can be used immediately on externalisation. This technique allows the tunnel to heal, reducing the risk of leaks, early infection or peritoneal dialysis failure. As yet this method is not widely used in the UK. We report a single centre experience of the use of buried peritoneal dialysis catheters

Methods

We reviewed the records of all patients who had a buried peritoneal dialysis catheter inserted in a single UK teaching hospital from May 2015 to July 2017. Case note review was conducted to collect data on the timing of peritoneal dialysis catheter placement and externalisation, renal function, patient factors and clinical outcomes.

Results

9 patients had buried peritoneal dialysis catheters inserted. Of these, 8 had their catheter externalised at the time of data collection, and one remains buried. 3 (38%) buried peritoneal dialysis catheters functioned and 5 (62%) failed. At the time of data collection only 4 (50%) patients who had buried peritoneal dialysis catheters inserted were still undergoing peritoneal dialysis, with 4 (80%) of the patients with failed catheters having switched to permanent haemodialysis.

Reasons for failure were damage during externalisation (1, 13%), tunnel infection following externalisation (1, 13%) and non-function despite surgical repositioning (3, 38%).

Patients whose catheters functioned had lower BMI (27 ± 2) than those with failed catheters (35 ± 5).

Functioning catheters were buried for longer, with median time from insertion to use of 307 days versus 140 days for failed catheters. Patients with functioning catheters were referred at a mean eGFR of 6, and had a mean eGFR of 5 on externalisation. Patients with failed catheters had more rapidly deteriorating renal function with a mean eGFR of 10 on insertion and 6 on externalisation

Discussion

In our experience buried peritoneal dialysis catheters were associated with poorer outcomes than standard peritoneal dialysis catheter insertion, and were associated with significant morbidity including infection, catheter reposition, and peritoneal dialysis failure. Patients with buried peritoneal dialysis catheters were less likely to commence dialysis on their chosen modality than those with standard catheter insertion.

Outcomes were better in those with lower BMI and with slow deterioration in renal function. In a carefully selected patient group buried peritoneal dialysis catheters may allow timely commencement of peritoneal dialysis but the high risk of catheter failure has meant that we do not recommend buried peritoneal dialysis catheter placement as part of standard care.