

Insertion of Tenckhoff catheters under local anaesthetic for the acute treatment of end-stage renal disease

INTRODUCTION AND AIMS: The use of central venous catheters for haemodialysis (HD) treatment is the standard procedure in most Units for the acute dialysis of patients with acute kidney injury (AKI) or end-stage renal disease (ESRD). We present our experience with insertion of Tenckhoff catheters under local anaesthetic (LA) for the acute treatment of patients with unexpected end-stage renal disease or AKI with peritoneal dialysis (PD).

METHODS: Within 2015, twenty-nine patients (17 male, mean age 58 years, range 23-81 years) presenting with unexpected ESRD (either attending our low-clearance and Nephrology Clinics or presenting as crashlanders) (n=21) or AKI (n=8) were treated with acute PD through the insertion of a Tenckhoff catheter under LA. PD catheters in our PD centre are coiled, two-cuff Tenckhoff catheters which are inserted as a day-case procedure under LA using the modified Seldinger technique through a short transverse subumbilical incision.

RESULTS: PD treatment commenced either on day zero (n=15) or within the next few days after the insertion of PD catheter (n=14). No immediate post-procedure complications were observed in any of the patients. Within the first 3 weeks after the procedure, two patients (7%) had their catheters removed and switched to HD, one due to drain problems secondary to constipation and another due to peritonitis. In the long-term, 6 other patients (21%) switched to HD, 3 (10%) due to tunnel infection and peritonitis, one due to PD failure, one due to PD-related pleural leak and two as of choice. Seventeen of the patients remained in the long-term on PD, whereas 3 patients eventually terminated PD as their renal function recovered.

CONCLUSIONS: The insertion of Tenckhoff catheters under LA for the acute treatment of patient with unexpected end-stage renal disease or AKI with PD is a straightforward and safe procedure.