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Reinsertion of peritoneal dialysis catheter in a patient with Nocardial peritonitis: a case report

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**Background and Aims:** Peritonitis is a major drawback in patients on PD leading to technique failure, change in modality to hemodialysis, mortality. Nocardia infections are rare and occur mainly in immunocompromised individuals. Eleven cases of Nocardial peritonitis only have been reported. Given the rarity of the condition, duration of medical treatment, time at which catheter reinsertion can be done after treatment are not clear. We describe a case of nocardial peritonitis which presented with tunnel abscess and septic shock.

**Method:** Our patient is a 65 yr/M, DM & HT, initiated on CAPD due to multiple access failure elsewhere. He was also on treatment with directly acting antiviral for HCV infection. He presented with fever, abdominal pain and cloudy peritoneal fluid. Vitals were HR 98/min, BP 90/60 mmHg, temperature 100 F. Abdominal examination showed insertion and exit site pus with tenderness (Fig. 1a,b). USG screening showed tunnel abscess. Labs showed hemoglobin 7.2 g/dL, white blood cell count 6200 cells/cu mm, platelet count 1.4 lakh/cu mm, SGOT 23 U/L, SGPT 15 U/L and peritoneal dialysis fluid count 1570. CT abdomen showed no intraabdominal abscesses.

He was started on intravenous antibiotic and ionotropic support. Emergent PD catheter removal was done in view of septic shock & was dialysed via femoral tunnelled catheter.

Pus and peritoneal fluid culture grew *Nocardia* spp after six days of incubation. Intravenous cotrimoxazole was given for 2 weeks and intravenous ceftriaxone was given for 4 weeks followed by oral cotrimoxazole 960 mg thrice weekly.

**Results:** Following 7 months of treatment with cotrimoxazole, PD catheter was inserted laparoscopically after omentectomy and adhesiolysis. Peritoneal biopsy was taken at the time of catheter insertion, histopathology showed fragments of peritoneal tissue with scattered chronic inflammatory cells, culture was negative for Nocardia. PD catheter outflow dysfunction was noted after initiation of exchanges. CT abdomen showed migration of PD catheter tip following which catheter tip repositioning was done laparoscopically. During procedure, nodules were noted over peritoneum and bowel. Biopsy of the nodules were revealed foreign body granuloma and culture did not grow *Nocardia* (Fig. 2).

Patient was initiated on three exchanges with 2.5% dextrose per day after a break-in period of 14 days. He continues to be on PD with good ultrafiltration.

**Conclusion:** There is not much data on reinsertion of PD catheter after nocardial peritonitis. One case of Nocardial peritonitis reported in literature, in which PD catheter was reinserted. Jamie Kendrick-Jones et al. [1] reported a case of Nocardial peritonitis in which catheter was reinserted after 1 year. To our knowledge this is the first case of Nocardial peritonitis which presented with tunnel abscess. Catheter was removed due to septic shock. Patient was treated with cotrimoxazole for seven months after which PD catheter insertion was done. Return to PD is feasible if Nocardial infection is identified and treated appropriately.

**REFERENCE**

**Figure 1:** a & b: Pus at exit site and insertion site.

**Figure 2:** Laparoscopic image of nodules over bowel.