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MIGRATING CAPD CATHETER LEADING TO ASCENDING COLON PERFORATION: A CASE REPORT

Dipak Vasant Patil[1], Guliver Potsangbam[2], Goldie Longjam[3], Ajit Lukram[4]

ABSTRACT

Peritoneal dialysis (PD) is a well-established form of renal replacement therapy, and most of the time catheter is left in situ even after cessation of PD. In situ catheter may lead to bowel perforation. Here, we present a case of migrating Continuous Ambulatory Peritoneal Dialysis (CAPD) catheter perforating the ascending colon; clinically presenting as oozing of maroon coloured stool from colostomy opening. A 53-year male with CKD & colostomy, initially on PD then on haemodialysis presented with sudden onset pain in abdomen and passage of maroon coloured stool from colostomy opening (done for colorectal cancer). Colonoscopy done showed CAPD catheter migrated to the ascending colon and had perforated remaining ascending colon. Laparotomy and catheter removal improved the condition of patient with no further complications. We want to emphasise that bowel perforation may occur in remaining colon after colostomy. Early diagnosis and treatment can save the life of patient and CAPD catheter should be removed when not in use.

Author Affiliations:

[1] Department of General Medicine, Shija Hospitals and Research Institute (SHRI), Imphal, Manipur

[2] Department of Nephrology, Shija Hospitals and Research Institute (SHRI), Imphal, Manipur

[3] Department of Gastroenterology, Shija Hospitals and Research Institute (SHRI), Imphal, Manipur

[4] Department of General Surgery, Shija Hospitals and Research Institute (SHRI), Imphal, Manipur

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*Corresponding Author:

Dr. Dipak Vasant Patil

Doctors' quarters, Shija hospital & research institute, Imphal, Manipur

Mob.: 7005617433

Email: drdipakvpatil@gmail.com

INTRODUCTION

Large number of chronic renal failure patients requires dialysis in their lifetime. Peritoneal dialysis and haemodialysis are the two options available. Pain and catheter leakage are frequently reported complications of peritoneal dialysis. Delayed bowel perforation is an uncommon but serious complication related to CAPD catheter.

Here, we report a 51 year male presenting with complain of pain in abdomen and passage of maroon coloured stool, diagnosed as bowel perforation due to migrating CAPD catheter; diagnosis is being done with colonoscopy.

CASE REPORT:

A 51 year old male with CKD-V with hypertension and type2 DM; diagnosed having CKD in Jan 2017 and started on peritoneal dialysis from Feb 2017 in a private hospital elsewhere. He was on peritoneal dialysis for 2 months but since he complained of pain in abdomen and his creatinine level did not improve significantly, he was shifted to maintenance haemodialysis after 2 months of peritoneal dialysis with peritoneal catheter kept in situ. He also had H/O colostomy for Ca left colon with colostomy bag in situ since 15 years.

He visited our hospital for considering kidney transplantation. At the time of admission, his SCr was 8.3mg/dl, K 4.1 mmol/L, Hb 10.5 gm/dl, Temp. 98^0F. During the hospital stay he developed sudden onset abdominal pain associated with maroon coloured stool passed from colostomy bag. Upper GI endoscopy shows mild duodenitis. Colonoscopy done next day revealed CAPD catheter perforating the colon with hemoclot around catheter; removal of which causes a fresh oozing of blood. Immediate laparotomy was done and CAPD catheter was removed. On the day of colonoscopy, his Hb was 8.3gm/dl. Post procedure he was haemodynamically stable

with Hb 9.2 gm/dl two days after catheter removal. (Fig 1&2)

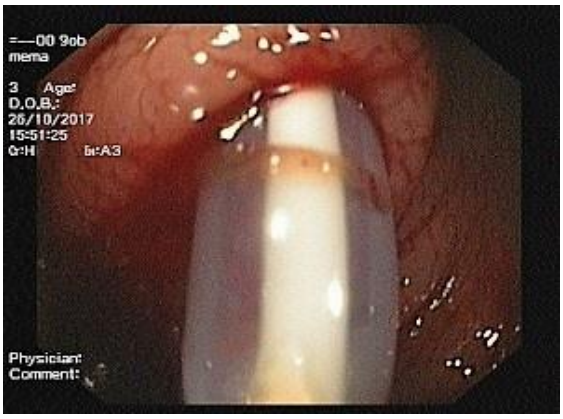

Fig.1: Colonoscopic view of CAPD catheter

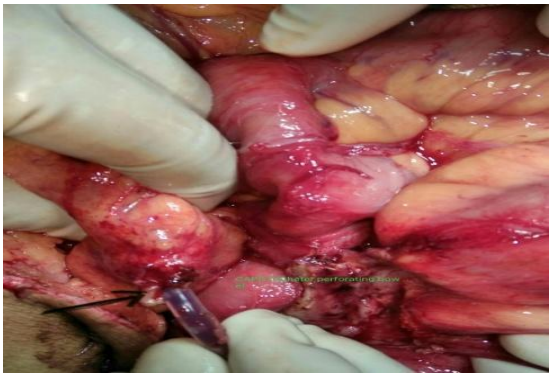

Fig.2: Laparotomy view of CAPD catheter

DISCUSSION:

Peritoneal fluid that bathes the bowel wall act as a barrier that prevents adhesion of the catheter to the bowel wall. Lack of fluid in the peritoneal space after cessation of CAPD predisposes to pressure induced necrosis because of loss of fluid cushion[1, 2]. Hence, in patients who are not on PD for more than a month, catheter removal should be done to prevent further complications like bowel perforation. Reported cases of bowel perforation occur with main complaints of watery diarrhoea after peritoneal dialysis and sometimes with protrusion of catheter tip through anus. In our case there is no diarrhoea, no catheter tip visualized on clinical examination but there is bleeding through colostomy opening.

Previous studies showed that bowel perforation occurred from 1.5-48 months after cessation of PD. Some also have reported bowel perforation 4 years after cessation of PD[3], in our case perforation occurred 8 months after insertion of catheter and 6 months after cessation of PD. In most previous studies delayed perforation was associated with peritonitis[4]. In our case there were no signs of peritonitis. A patient with a history of diverticulitis, amyloidosisor use of immunosuppressant drugs has increased risk of bowel perforation [5, 6]. In our case patient had a history of colostomy. Treatment options include removal of catheter, antibiotics and bed rest[7]; laparoscopic removal and closure by endoscopic clip or laparotomy, catheter removal and colostomy [8]. In our case patient already had previous colostomy. Hence re-laparotomy was done, catheter removed and closure done.

CONCLUSION

We want to emphasise few points regarding bowel perforation by CAPD catheter. First, bowel perforation can occur in the remaining colon after colostomy and can present with haemorrhage. Second, CAPD catheter should be removed when not in use. Third, early diagnosis and treatment may save the life of patient and further complications. And lastly, if a patient has no signs of peritonitis or sepsis, recovery is fast.

Conflict of Interest Statement-

There is no conflict of interest.

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