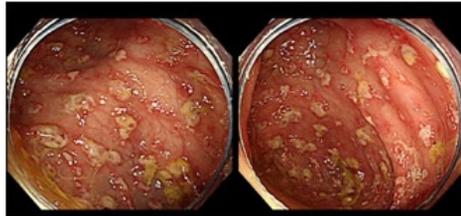


A case of successfully treated refractory CDI with FMT in chronic dialysis patient.

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**Introduction:** Clostridium difficile infection(CDI) is the most common cause of nosocomial diarrhea. It has been suggested that chronic kidney disease(CKD) is a risk factor for CDI and patient with CKD have an approximately 2~2.5 fold increased risk of CDI and recurrence. Fecal microbiota transplantation(FMT) has emerged as the best treatment of recurrence or refractory CDI. But few reports suggested the application of FMT for dialysis patients. Therefore, we report a case of applying FMT for refractory CDI for a chronic dialysis patient. **Case Report:** A 55-year-old female patient on dialysis with diabetic ESRD visited the hospital because of mental change. She had diarrhea on the 10th day of getting ceftriaxone and levofloxacin with a diagnosis of aspiration pneumonia. The stool culture result was C.difficile positive. We suspended the use of previous antibiotics, and administered metronidazole p.o. But the symptom did not get better after 7 days of treatment. Vancomycin p.o. was added and metronidazole p.o. was replaced with IV. As the diarrhea was not cured even after two weeks, we decided to carry out FMT considering the refractory CDI. The patient's daughter was the donor. Stool suspension was implemented through colonoscopy(CFS). The CFS found edematous bowel with hemorrhagic change and whitish plaque.(Fig1) We injected the prepared stool suspension to whole colon, and there was no complications. Diarrhea was reduced from two days after the FMT, and there was improved bowel edema on the f/u sigmoidoscopy. After being discharged from the hospital, she got another antibiotics care because of pneumonia and diarrhea occurred again. Although the stool culture result was negative, we applied vancomycin p.o. for 14 days because of possible CDI. As a result, no recurrence was found for the next one year. **Conclusion:** The patient in this study saw improvement on symptom 2 days after FMT despite her immunocompromised state as a chronic dialysis patient, and there was no complication. FMT may be a good option for refractory CDI in dialysis patient, and further studies to evaluate efficacy and safety of FMT in dialysis patient are necessary.



Cement Leakage in the Inferior Vena Cava

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A 73-year-old woman with a history of lumbar fracture presented with vomiting, diarrhea, and acute kidney injury. Physical examination revealed ascites and anuria. Serum creatinine level was 6.4 mg/dL. She was admitted to the intensive care unit, and a catheter was inserted into the right femoral vein for emergency hemodialysis. Follow-up abdominal radiography showed a long, radio-opaque, guidewire-like material along the inferior vena cava (IVC) (Fig. 1a, b). However, the procedure of catheter insertion was performed without errors or complications. Several years ago, she underwent percutaneous vertebroplasty (PVP) for vertebral compression fractures sustained in a fall. Abdominal computed tomography scan showed a long cement leakage in the IVC, which did not clog the arterial segments for branches (Fig. 1c). We concluded that cement leakage was misapprehended to be a remnant guidewire in the IVC. Although minor cement leakage is the most frequently reported complication of PVP, the cement can leak into the vena cava and pulmonary arteries, causing pulmonary embolism.1 We hypothesize that multiple injection sites of PMMA applied apart from each other at a proper distance might produce a long, linear, guidewire-like cement leakage. In addition, our case indicates that a high degree of suspicion is required for discriminating the cement leakage in the IVC in patients after PVP, because it can mimic a remnant guidewire or can interrupt the advancement of a guidewire during emergency femoral catheter insertion. Retrieval is necessary when large cement fragments in the venous system increase risk during embolization.2 If the fragment is too large for extraction through the IVC, it should be retrieved through a surgical approach. In our case, because the patient was old and had no symptom of embolization, retrieval of the fragments from the IVC was not performed. Fig. 1. (a) Abdominal supine and (b) lateral X-ray followed by after right femoral catheter insertion shows long cement embolus in inferior vena cava (black arrow) and femoral catheter (white arrow) (c) Abdominal computed tomography scan shows the long cement leakage in inferior vena cava (black arrow).

