Dear Sir,

We experienced a case of sclerosing encapsulating peritonitis (SEP) which is a serious but rare complication of continuous ambulatory peritoneal dialysis (CAPD) and intermittent peritoneal dialysis (IPD). The patient who had been on hemodialysis for 12 years because of chronic renal failure, showed the symptoms and surgical findings of SEP. About 1½ years before the diagnosis of SEP, the patient had been temporarily treated for 10 days with seven courses of IPD instead of hemodialysis because of tarry stool caused by relapsed duodenal ulcer. We could not elucidate the reason why peritoneal fibrosis continued even after the cessation of IPD therapy.

A 50-year-old patient who had been on hemodialysis for 12 years from August 1976, complained of nausea, vomiting and weight loss and was hospitalized in November, 1987. The patient had been operated on for duodenal ulcer in 1957 but no abnormal findings were found in the upper gastrointestinal tract. CT and ultrasonic examination showed ascites. At colon examination by barium enema, compression narrowing was revealed 30 cm above the anus. An abdominal paracentesis showed bloody ascites but cytologic studies were negative for malignant cells. Pseudo-myxoma peritonei was suspected and laparotomy was done. Abdominal viscera stuck to each other forming a firm encapsulated bowel loop covered by thick fibrous tissue. Adheolysis of the bowel loop was difficult to perform and only surgical specimens were taken for histological examination. The diagnosis of sclerosing encapsulating peritonitis was made (fig. 1).

![Fig. 1. Histologic examination of peritoneum extirpated by laparotomy. Proliferation of fibroconnective tissue and fibrin deposits are recognized. HE. × 70.](image-url)
appeared due to relapsed duodenal ulcer. After laparotomy, the patient’s gastrointestinal obstruction could not be relieved and he received intravenous hyperalimentation. The general condition of the patient gradually deteriorated and he died in December, 1989. Numerous causes of SEP have been reported but not one is sufficient to clarify the process of the disease. Irritability of peritoneal dialysates in unphysiologically high osmolarity and acidity is considered the cause. But in our case, the patient had received only seven courses of IPD therapy during 10 days and no episodes of peritonitis had occurred. Dialysates for IPD contained lactate as the buffer base. It is not reasonable to presume that fibrotic changes in the disease advanced due to the influence of the dialysates. After the very-short-term IPD therapy, the patient was continuously administered alfa-calcidol, cimetidine and cetraxate hydrochloride. The possibility that the administered drugs caused the fibrotic changes remains, but in this case no one drug has been presumed to be responsible for the disease progression, as for example the beta-blocking agents suggested in previous reports [2, 3].

Duration of IPD or CAPD where SEP occurred has been reported to be 3–42 [3] or 7–42 months [4]. In this case, it is thought that the very short duration of IPD was the initial step of the disease and unknown factors promoted the disease process to the final stage. It is regrettable that we cannot clearly indicate the factors which worsen fibrotic changes of the peritoneum.

References