CLINICAL IMAGES

Encapsulating peritoneal sclerosis

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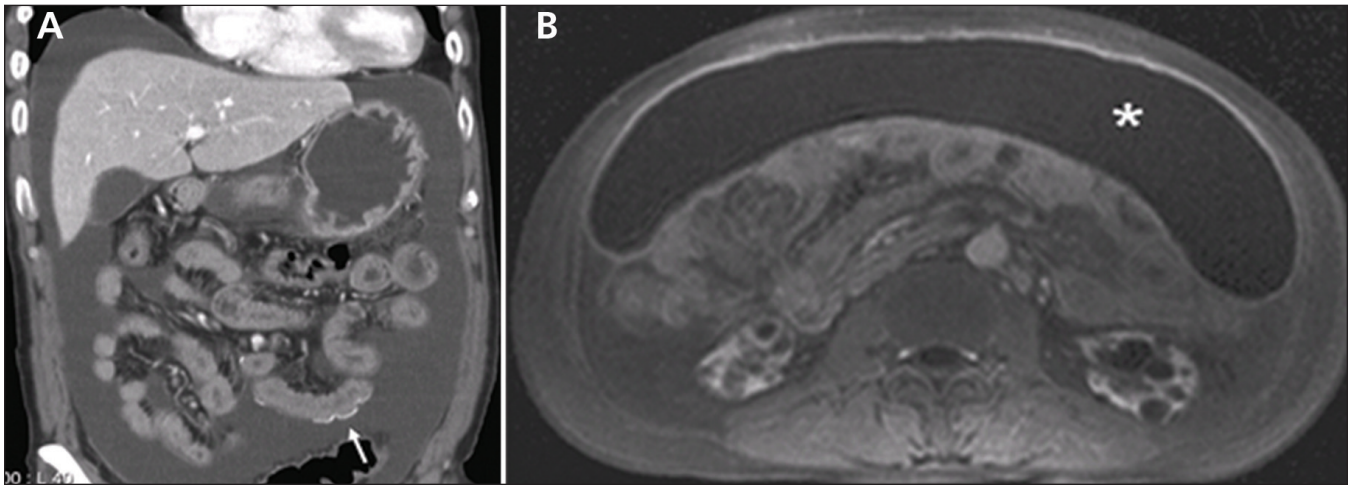

Figure 1: (A) Computed tomography scan of the abdomen showing curvilinear calcifications (arrow) along the bowel walls and serosa. (B) Magnetic resonance imaging scan of the abdomen showing ascites with wall enhancement in the omental space. The small bowel is compressed rather than floating in the ascites.

A 43-year-old man with end-stage renal disease presented with a 1-day history of diarrhea, poor appetite and diffuse abdominal tenderness. Although he had been treated with continuous, ambulatory peritoneal dialysis for 7 years uneventfully, his peritoneal dialysis effluent had become cloudy. Bacterial culture of the dialysate fluid showed *Pseudomonas aeruginosa*, *Klebsiella pneumoniae* and *Escherichia coli.* We administered intraperitoneal antibiotic therapy with ceftazidine 1000 mg/d and gentamicin 40 mg/d. After a week of the antibiotic therapy, our patient had not recovered. Because of refractory peritonitis, we removed his Tenckhoff catheter.[1] Two weeks later, the patient continued to have a low-grade fever and distention of the abdomen. The ascitic fluid was sterile on culture. Serial radiographs of the abdomen showed a fixed ileus.

We suspected peritoneal fibrosis based on our patient's persistent low-grade fever, ascites with negative culture, elevated C-reactive protein level (19.55, normal < 0.8 mg/L), and poor response to antibacterial therapy. Ultrasonography of the abdomen showed lobulated ascites and a computed tomography scan of the abdomen (Figure 1A) showed curvilinear calcifications along the surface of the wall of the small bowel. Magnetic resonance imaging scans (Figure 1B) showed massive, lobulated ascites in the omentum, with wall enhancement of the lobulated ascites and compression of the bowel. We diagnosed encapsulating peritoneal sclerosis.

We treated the peritoneal fibrosis with a 1-month course of oral tamoxifen 10 mg/d, followed by a 3-week course of oral prednisolone 0.5 mg/kg/d. The therapy with prednisolone was started after the end of the course of tamoxifen therapy because we were concerned about the possibility of uncontrolled intra-abdominal infection. The ascites resolved after the prednisolone therapy.

Encapsulating peritoneal sclerosis is a rare but serious complication of peritoneal dialysis. It has a mortality of more than 30%. Because early diagnosis is a decisive factor for survival, a high index of suspicion is crucial.[2]

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REFERENCES

1. Piraino B. Peritoneal dialysis-related infections recommendations: 2005 update. *Perit Dial Int* 2005;25:107-31.
2. Kawaguchi Y. Recommendations of the management of encapsulating peritoneal sclerosis in Japan, 2005: diagnosis, predictive markers, treatment, and preventive measures. *Perit Dial Int* 2005;25(S4):S83-95.