Regression of Large Hepatic Cysts by Minocycline Hydrochloride in Polycystic Kidney Disease

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Dear Sir,

Progressive enlargement of cysts in polycystic kidney disease (PKD) is usually associated with various symptoms including chronic abdominal pain and lumbago. Thus, the control of such problems is clinically very important for the management of PKD patients. Surgical removal of the cysts or cyst decompression surgery provides considerable long-term relief of the symptoms [1]. Also, percutaneous aspiration of cyst fluid is helpful to reduce the chronic pain, but the effective duration of this procedure is rather limited [2]. One reason may be the re-expan-

sion of the punctured cysts, together with the growth of the remaining cysts. Thus, application of a cyst sclerosant is required to obtain a rigid diminution of cyst volume.

Over the past few years, we have been performing cyst sclerotherapy for PKD, using minocycline hydrochloride as a sclerosant [3].

We recently treated a 42-year-old female with PKD, who had been suffering from refractory epigastric fullness and dyspepsia. Admission data were unremarkable including hepatic and renal function. To reduce these symptoms, cyst sclerotherapy was performed. This technique had been described previously [3]. Briefly, the subject took up the supine or prone position as required. After sterilization of the pertinent area, the ultra-sonographic probe was applied to detect a cyst (usually > 2cm in diameter) and local anesthesia was performed. Then a 23-gauge needle was inserted into the cyst under ultra-sonographic control and the fluid was removed slowly. Minocycline hydrochloride (5 mg/ml) was injected into the cyst with 1/4 to 1/2 volume of the aspirate. This procedure was repeatedly applied to the cysts in the liver and the kidney.

Fig. 1. X-ray of the upper gastrointestinal tract. Gastric configuration at 6 months after sclerotherapy (right panel) shows an apparent expansion compared with before therapy (left panel).

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After the sclerotherapy, she had been in good shape, without any epigastric trouble. Figure 1 shows the upper gastrointestinal barium studies before and 6 months after therapy.

Apparently, her stomach became dilated, indicating the reduction of compression by hepatic cysts. Figure 2 shows the changes of the hepatic large cysts by CT scans at 6 months of

follow-up. Substantial regression of the treated cysts were observed. Thus, cyst sclerotherapy with minocycline hydrochloride had been very effective to reduce the intolerable symptoms caused by the enlarged hepatic cysts in this patient.

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Fig. 2. Abdominal CT scans without contrast. The enlarged hepatic cysts before sclerotherapy (upper panel) were significantly diminished at 6 months of follow-up (lower panel).

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