Acquired Cystic Disease

R.	Raymond	Endreny
J.	John	Cronan
J.A.	Joseph A.	Chazan

Departments of Nephrology and Radiology, Rhode Island Hospital, Providence, R.I., USA

Joseph A. Chazan, MD, Division of Nephrology, Rhode Island Hospital, 593 Eddy Street, Providence, RI 02903 (USA)

Dear Sir,

Acquired cystic disease of the kidneys is a recognized complication among patients with long-standing renal failure. It has been suggested the development of cysts is directly related to the duration of renal failure, and that the presence of these cysts may result in clinical symptoms such as hematuria and flank pain and that solid tumors and even malignant degeneration may occur [1–3]. In an effort to ascertain the clinical significance and long-term implications of these cysts, we evaluated the clinical course and performed renal ultrasound on all patients who had been on chronic hemodialysis at the Artificial Kidney Center of RI, a free-standing dialysis center, for 7 or more years. Patients who were either anephric or who had autosomal-dominant polycystic kidney disease were excluded.

Twenty-nine patients (11 male and 18 female) with a mean age of 58 years (range 31–76 years) who had been on dialysis for a mean of 117 months (84–156 months) were studied with real time ultrasound. Twenty-seven had bilateral or multiple small cysts (5–15 mm) in small hyper-dense kidneys (fig. 1). None of these patients had had clinical episodes of unexplained flank pain, hematuria, or recurrent urinary tract infections. In addition, no solid tumors or evidence of metastatic renal cell carcinoma had occurred among this group. Parenthetically, in 15 years of dialysis at this center involving over 800 dialysis patients, we have not seen the development of a single case of metastatic renal cell carcinoma.

The results of our study confirm that acquired cystic renal disease occurs in virtually all patients who have long-standing renal failure and who have been on dialysis for many years. In our experience these cysts appear to be asymptomatic and tumor development did not occur.

Therefore, the development of hematuria or flank pain should not be ascribed to the presence of cysts per se and should be investigated further. Periodic or continual

Fig. 1. Dense kidney measuring 8 cm with numerous cysts about 1 mm in size. L= Liver, K= kidney.

screening of chronic renal failure patients for acquired cystic disease does not seem to be warranted in view of these findings.

References

Mickisch O, Bommer J, Bachmann S, Waldherr R, Mann JFE, Ritz E: Multicystic transformation of kidneys in chronic renal failure. *Nephron* 1984;38:93–99.

Narashiman N, Golper TA, Wolfson M, Rahatzad M, Bennett WM: Clinical characteristics and diagnostic considerations in acquired renal cystic disease. *Kidney Int* 1986;30:748–752.