Urate homeostasis in polycystic kidney disease: comparison with chronic glomerulonephritic kidney.

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Autosomal dominant polycystic kidney disease (ADPKD) might affect urate homeostasis and clearance. Renal tubular urate transport was studied by means of probenecid (PB) and pyrazinamide (PZA) tests in individuals with ADPKD and normal renal function as well as various degrees of renal failure (49 patients). Comparisons were made between polycystic and chronic glomerulonephritic kidney (CGNK), as well as with controls (men with normal renal function). Patients with ADPKD and normal renal function showed plasma urate levels within normal range and normal renal urate handling. In contrast higher plasma urate levels comparing to controls were found in patients with CGNK and normal renal function. During the evolution of renal failure ADPKD patients showed lower urate plasma levels and higher renal clearance as well as, fractional urate excretion, comparing to CGNK patients with the same degree of renal failure. In conclusion patients with ADPKD and normal renal function have normal urate handling and plasma urate levels within normal range. With increasing severity of disease and during evolution of renal failure CGNK patients showed higher urate plasma levels and lower clearances comparing to ADPKD patients. When renal disease becomes more advanced there was no difference in renal urate handling between ADPKD and CGNK patients.