Gallstone Disease in Dialysis Patients

U.

Ulrich

Gladziwa

Department of Internal Medicine II, Technical University of Aachen, Germany

Dr. U. Gladziwa, Department of Internal Medicine II, Technical University of Aachen, Pauwelsstrasse 30, D-52057 Aachen (Germany)

Dear Sir,

We read with great interest the short communication by Badalamenti et al. [1], who found a higher prevalence of gallstone disease in patients on regular dialysis treatment (33 of 119; 28%) than in the general Italian population (8-11%). Twenty-nine had gallstones and 4 had had previous cholecystectomies for colicky gallstones.

This study shows some similarities with the findings of a large clinical study from our nephrology department where we also investigated the prevalence of cholelithiasis in hemodialysis patients [2]. In a retrospective study, 321 consecutive hemodialysis patients admitted to our medical clinic with end-stage renal disease were screened sonographically for the presence of gallstones. An age- and sex-matched control population without evidence of renal disease (normal levels of serum creatinine and urea and inconspicuous findings of the kidneys on sonography) was recruited from 7,000 patients admitted for routine abdominal sonography.

The overall prevalence of cholelithiasis in the hemodialysis population was 20.9% (67 of 321, including 25 patients with cholecystectomy; 3 men, 22 women: 18 prior to, 4 after the start of dialysis therapy; men 13.5%, women 30.9%) and 13.4% in the controls (43 of 321; men 10.3%, women 17.6%) ($p = 0.0119$). However, considering that 10 of the 18 women with previous cholecystectomy had normal renal function, no significant difference could be detected between the patients with renal failure and the controls ($p = 0.126$).

Therefore, despite a higher prevalence of gallstone disease, we could not identify chronic renal failure as a risk factor for gallstones.

Similar to the study of Badalamenti et al. [1], our preliminary results failed to show any correlation between the frequency of gallstones and plasma parathyroid hormone (1-84). In contrast to Badalamenti et al. [1], who demonstrated an increase in the prevalence of gallstones with age, we were unable to detect such a relationship when the groups were compared according to decades of life.

Our findings are in accordance with those of Pahl et al. [3], who reported that 13% of patients with end-stage renal disease and maintained on hemodialysis were found to have cholelithiasis at autopsy. In addition, another 9% had had previous cholecystectomy, raising the cumulative incidence to 22%.

However, necropsy surveys are unsatisfactory because necropsy subjects are not representative of the living population.

In conclusion, the findings of our large clinical study argue against an important role of hemodialysis as a risk factor for gallstone disease. Nonetheless, cholelithiasis should be

looked for and excluded while investigating upper abdominal symptoms in patients with chronic renal failure.

References

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