Erythropoiesis in Dialysis Patients with Acquired Cystic Kidney Disease

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Fig. 1. Hemoglobin and erythropoietin levels in 12 patients with large-sized kidneys (group 1, ■) and a test population (group, 2, □).

quired cysts but as a function of enlarged cystic kidneys. However, the group of patients with large-sized cystic kidneys differs significantly by less severe anemia and not significantly by the erythropoietin levels. But other factors regulating erythropoiesis like IgF-I [7] can play an important role and have to be evaluated.

Our results suggest that anemia is not bound to the presence or absence of cysts, but to their size and to the size and weight of cystic kidneys.

Dear Sir,

In a collaborative study on the prevalence of acquired cystic kidney disease (ACKD) and associated cancer [1], we looked for a possible relation between ACKD and improvement of anemia. A total of 161 dialysis patients without adult polycystic kidney disease have been explored by echography and CT scanning. For every patient, we determined blood levels of hemoglobin, hematocrit and red blood count, as well as any recent transfusion (during the 2 last months), iron supplementation or recombinant human erythropoietin treatment.

The importance of anemia does not significantly differ between ACKD+ and ACKD-, even if the comparison is made as a function of dialysis time. If we consider only the patients recently treated by blood transfusions or recombinant human erythropoietin, that logically correspond to the most anemic, we cannot detect a significant difference in favour of ACKD-. Likewise, if we consider only the patients not treated for their anemia, no difference appears in favour of ACKD +. But we could select a population with large-sized cystic kidneys, known as at risk for cancer: there are 12 patients who differ from a test population matched for dialysis time by a moderate degree of anemia (fig. 1). Their hemoglobin was 11.6 ± 2.1 g/dl and their hematocrit $35.1 \pm 6.6\%$, for respectively 8 ± 0.6 g/dl and $23.9 \pm 1.7\%$ in the test population. Their serum erythropoietin levels measured by enzymatic immunoassay were greater than

Group 1 Group 2

Group 1 Group 2

those of the test population, but the difference is not significant.

Improvement of anemia has been related to ACKD [2-5]; a case of polycythemia treated by phlebotomy has even been reported [6]. Inappropriate renal secretion of erythropoietin may be the cause: a pathogenic role has been attributed to the cysts in the production of erythropoietin thanks to ischemia and interstitial hypoxemia produced by tissue compression. In our study, anemia does not differ as a function of ac-

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4

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Schillinger

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