

EVALUATION OF THE IMPORTANCE OF CORRECTING ANEMIA AND IMPACT ON PROGRESSION OF CHRONIC KIDNEY DISEASE

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INTRODUCTION

Anemia is a risk factor for chronic kidney disease (CKD) due to renal tissue hypoxia and accelerating decline in GFR. Anemia correction may reduce the time to initiation of renal replacement therapy.

AIM OF STUDY

The purpose of this paper was to assess the impact of renal anemia correction on the evolution of renal function.

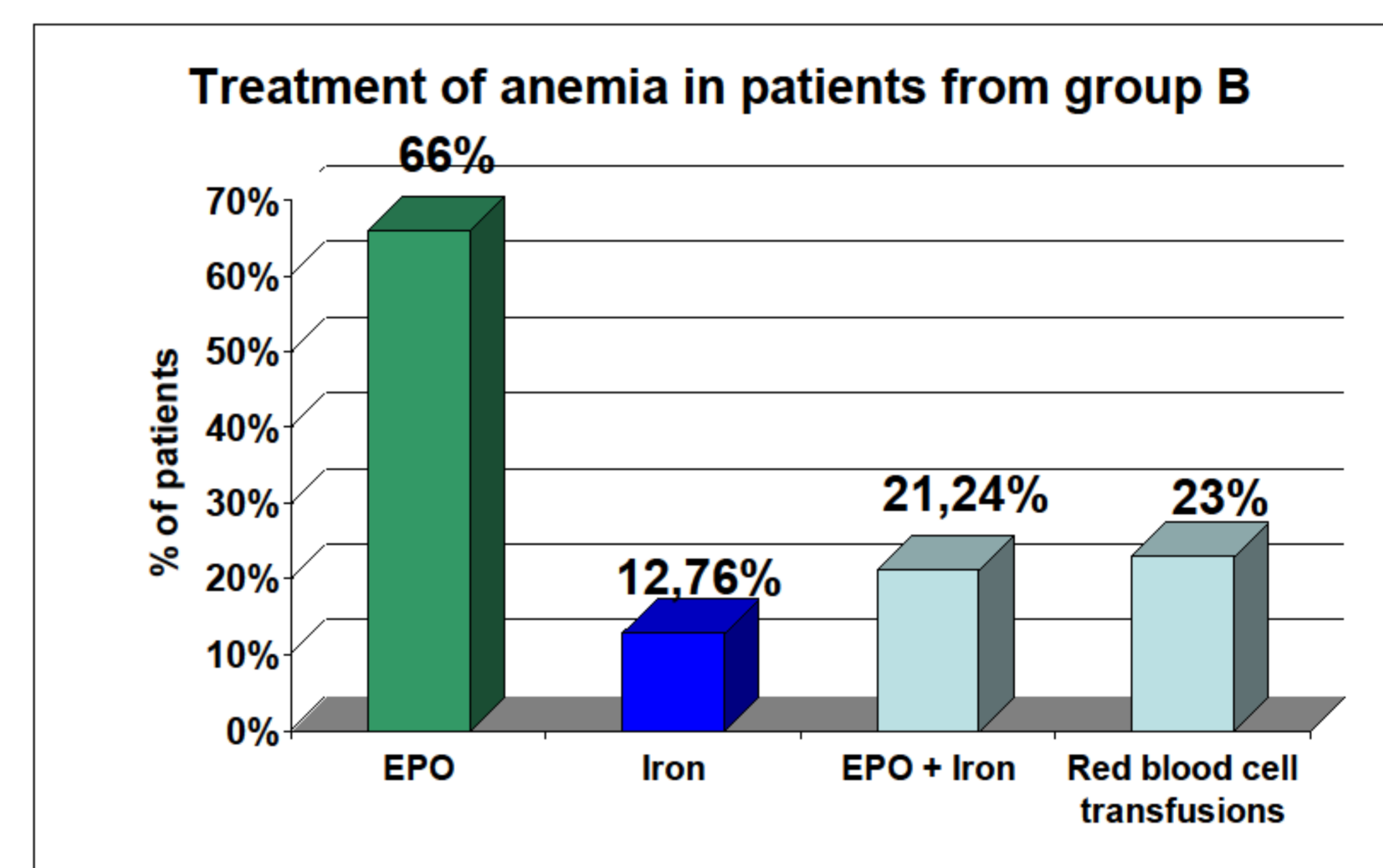
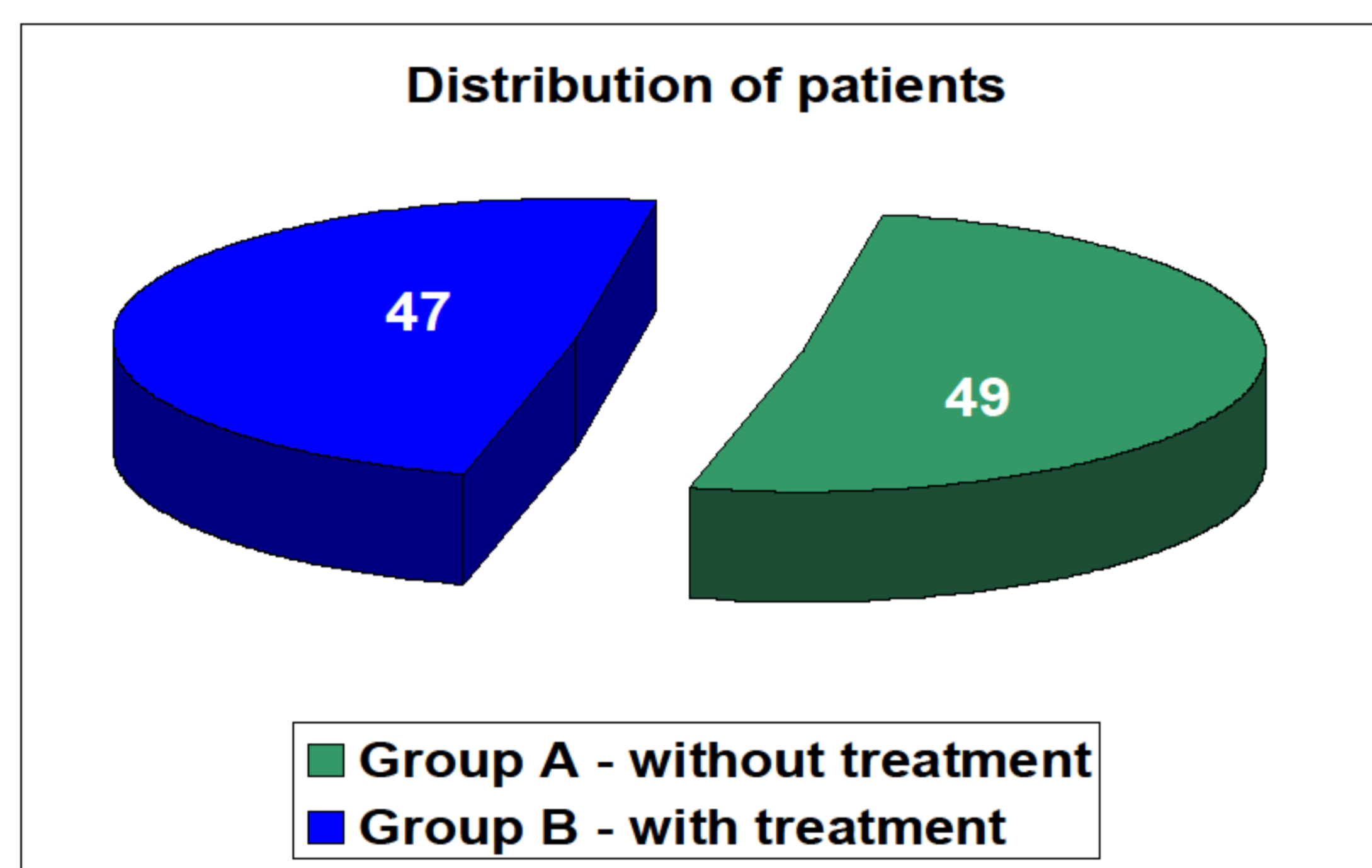
METHODS

Were included in the study 96 patients with CKD and renal anemia divided into two subgroups, group A - 49 patients without anemia treatment and group B - 47 patients with anemia treatment.

All patients were followed for 12 months.

EPO resistance index (ERI) was calculated as EPO dose (mcg/kg/week) divided by hemoglobin level (g).

Were followed the evolution of serum creatinine, glomerular filtration rate (GFR) and residual diuresis.



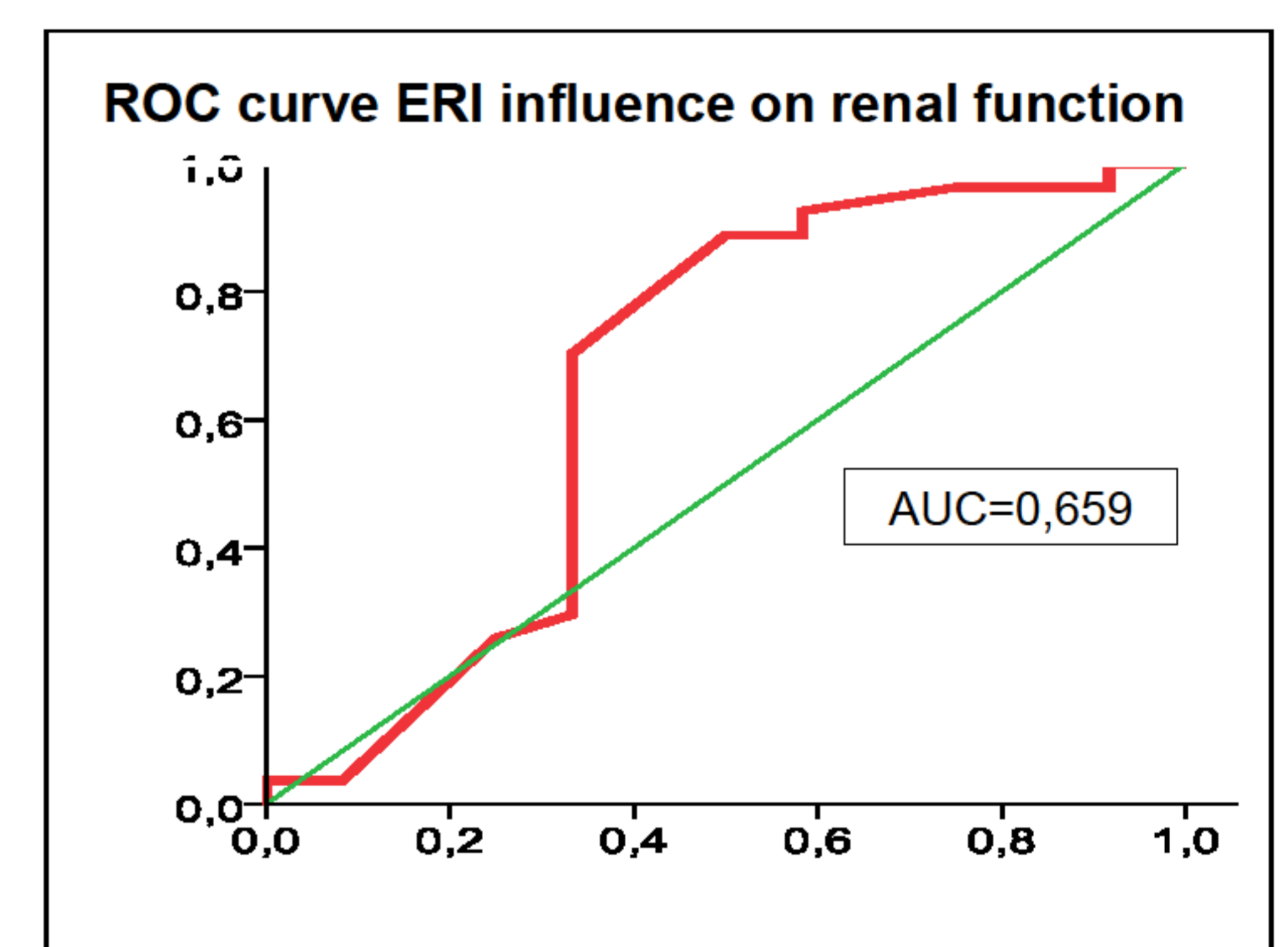
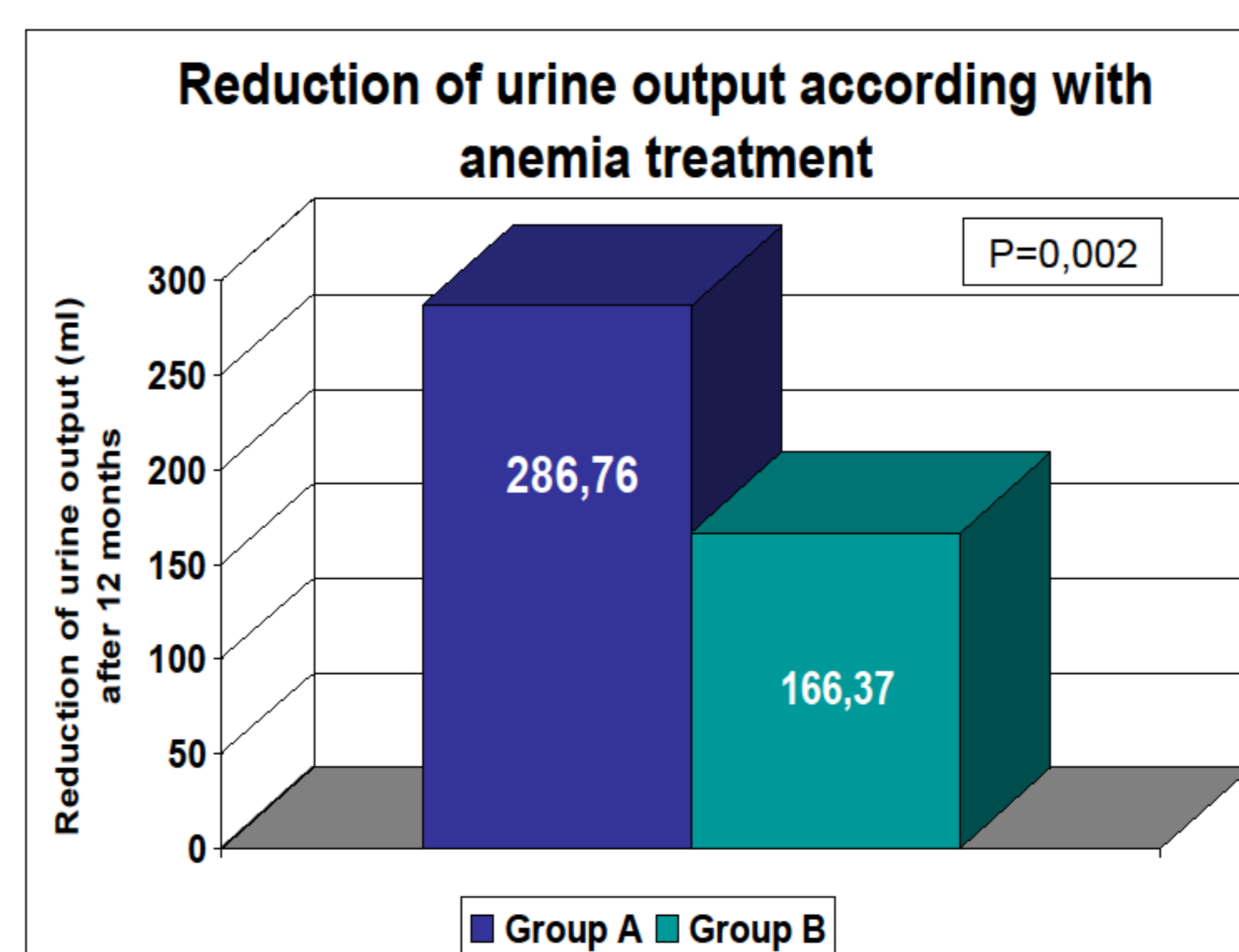
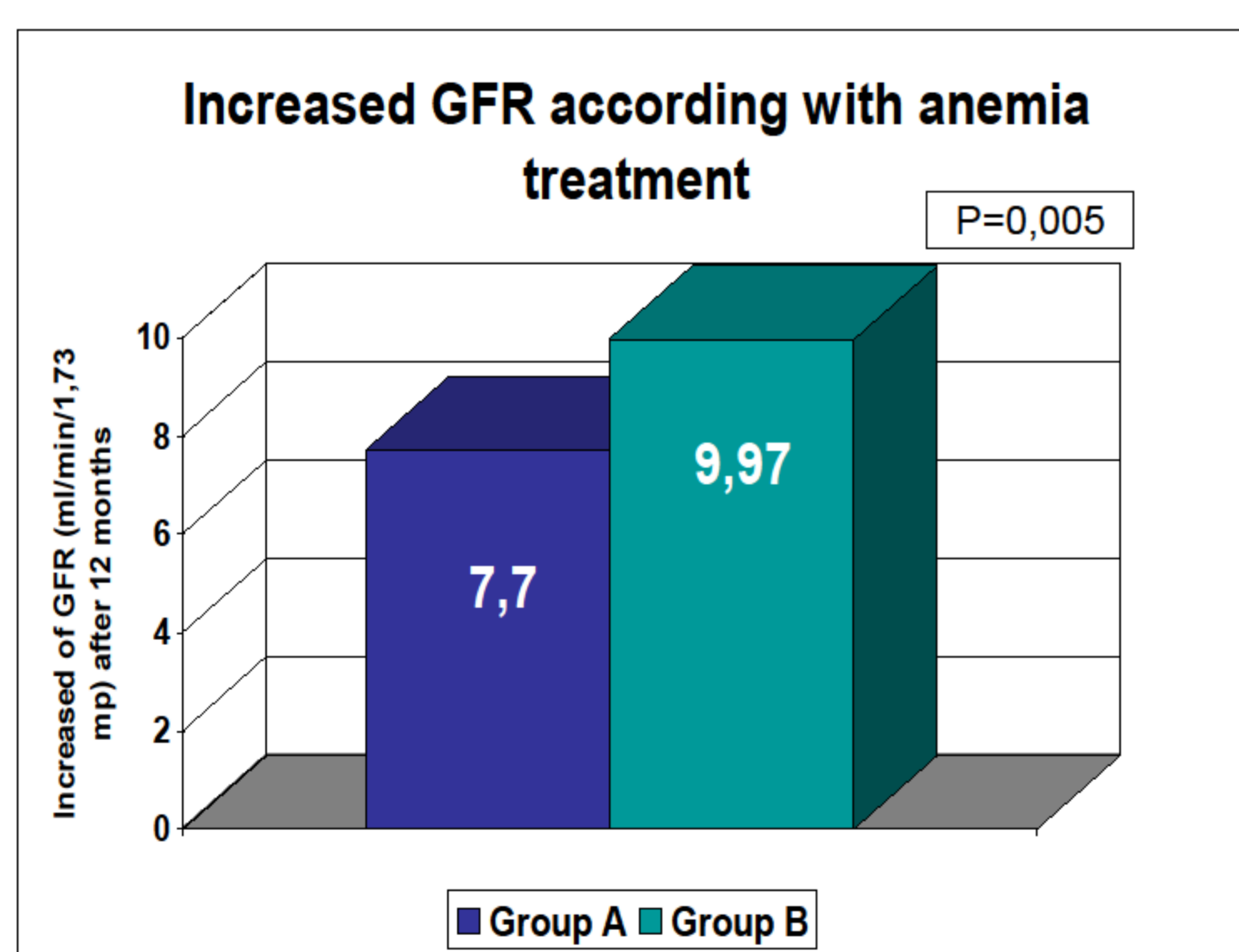
RESULTS

➤ Increased GFR was higher after 12 months in treated patients than in untreated patients (9.97 ± 0.83 ml/min/1,73 m²/year versus 7.70 ± 1.02 ml/min/1,73 m²/year, $p=0.005$).

➤ Significant influence of ERI on renal function (a binary regression model showing a 2.7 times higher risk of having a GFR below 15 ml/min/1,73 m² for patients with resistance to EPO).

➤ ROC curve indicates a model with an accuracy of 65.9%.

➤ There was a greater reduction in urine output in untreated patients compared to those treated (268.76 ± 194.17 ml versus 166.37 ± 103.32 ml, $p = 0.002$).



CONCLUSIONS

Anemia is an important risk factor for progression of CKD and its correction could be associated with improving of renal function. Resistance to EPO treatment is associated with a higher risk of developing severe renal impairment.

