

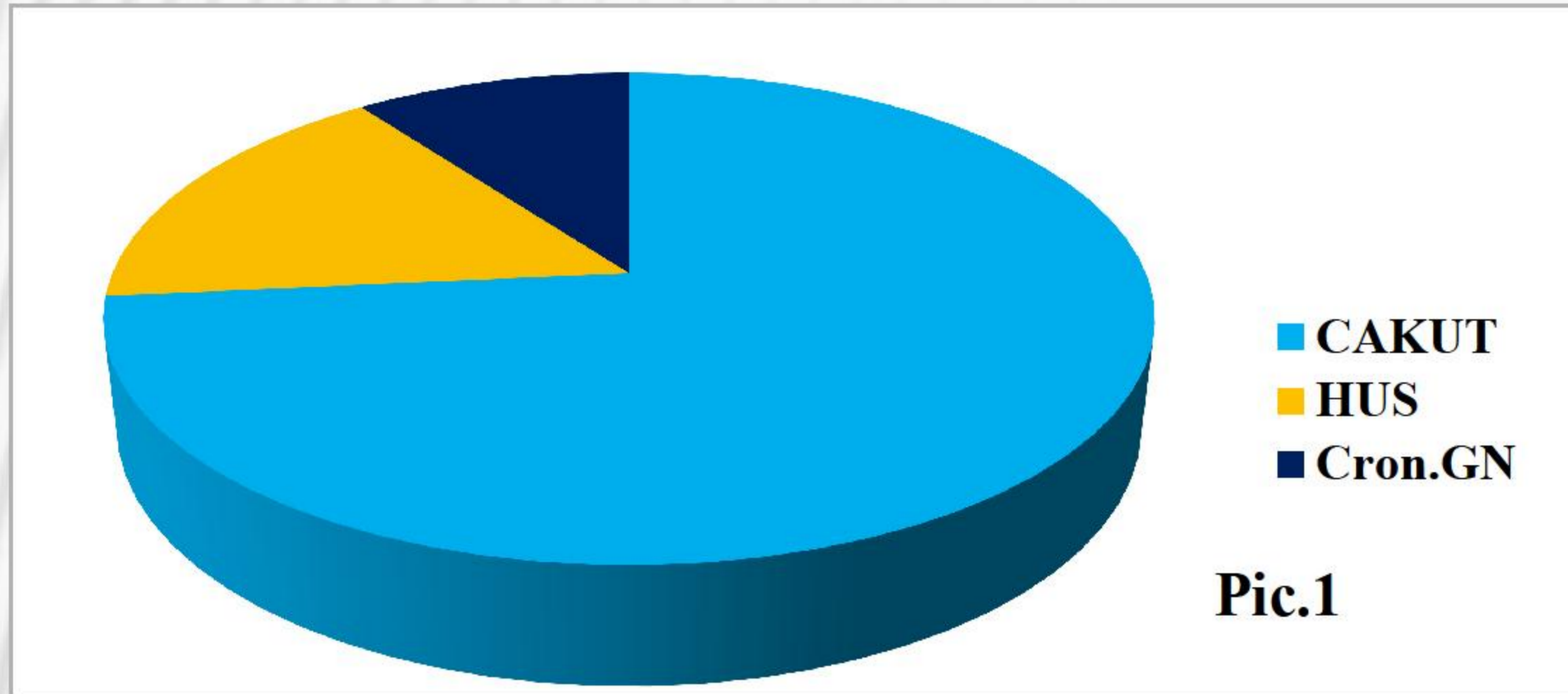


24-HOUR BLOOD PRESSURE MONITORING IN RENAL TRANSPLANTED CHILDREN



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The long-term graft survival in transplanted children is mainly restricted by cardiovascular complications, in particular, arterial hypertension (AH). To reveal the posttransplant blood pressure (BP) dynamics 102 children aged from 6 to 17 years (56 boys and 46 girls) after cadaveric renal transplantation (TP) were examined.



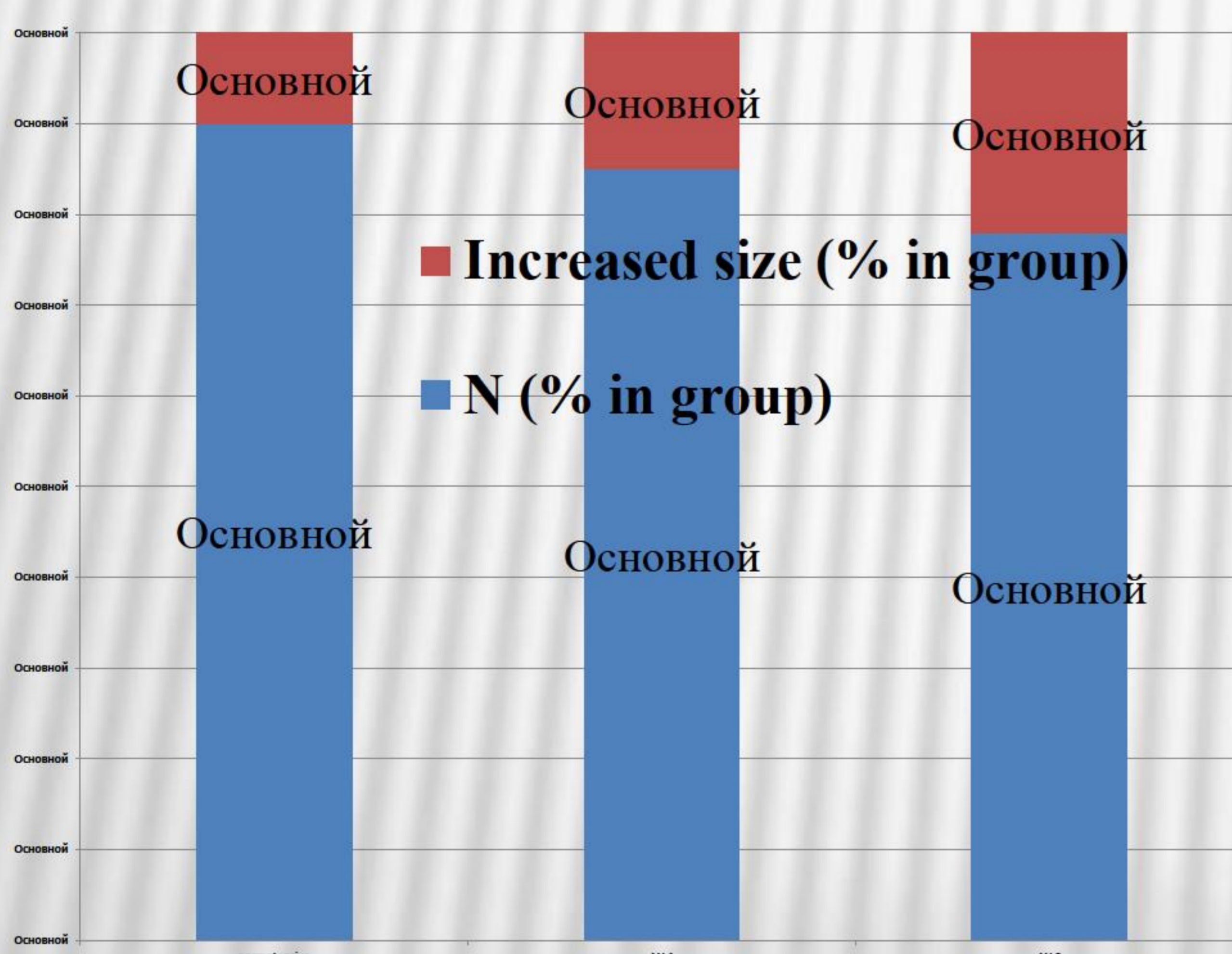
In the period of 2, 6 months and 1, 2, 3 years after the TP all children underwent daily BP monitoring (DBPM), echocardiography, biochemical tests, GFR measurement. Initially the majority of patients had CAKUT (64.29% of children), HUS (14.29%), chronic glomerulonephritis (8.93%). (pic.1)

Patients age at the time of the transplantation varied from 6 to 17 years (11.9 ± 2.8 years, Me = 12 years). 46.43% of children received a renal replacement therapy (RRT) for 1-3 years. Two children were dialyzed over 5 years.

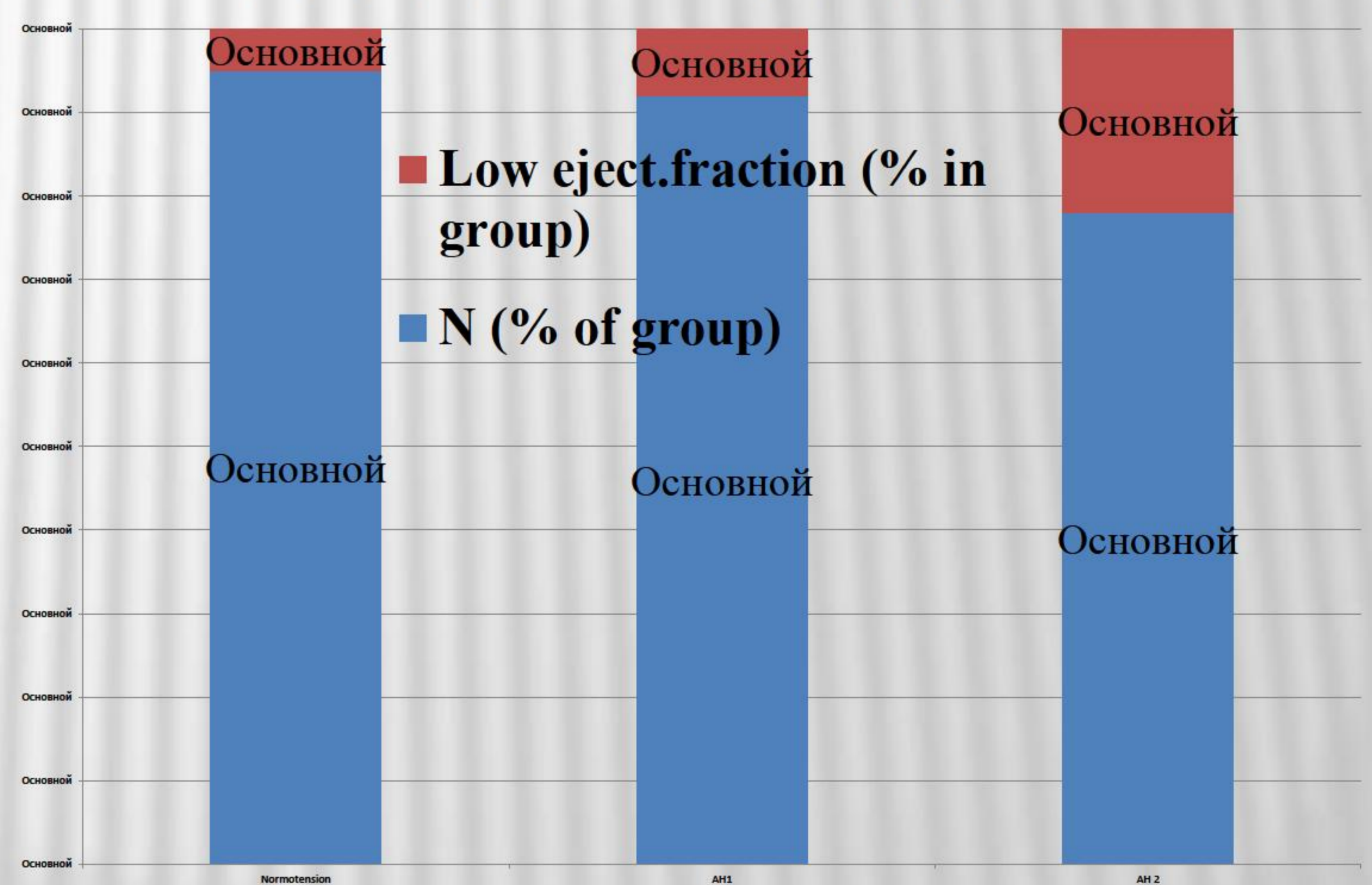
Our study revealed a double predominance of patients with AH (n= 91, 89.2%) over normotonic (n= 11, 10.8%). Children with BP within 95-99th percentile value prevailed over patients with BP above 99th percentile value. Thus 3 groups of patients were determined: normotonic (n= 11, 10.8%), AH 1 (n = 63, 61.7%), AH 2 (n = 28; 27,5 %).

There was no correspondence between BP level and duration of dialysis ("short" - for 2-6 months and long-term - 6 months-1 year and 1-3 years course of RRT). Majority of children had AH 1 (66.6%, 62.5%, 64.3%, respectively). Serum creatinine was increased in 77.78% children with AH1 and in 92.59% with AH2. Left ventricular dilatation (LVD) combined with reduced ejection (EF) fraction were revealed in all groups, but patients with AH2 had LVD and lower ejection fraction in 1,5 times (for EF-2 times) more often, than children with AH1 and in 2 times (for EF-5 times) more often, than normotonic (pictures 2 and 3)

Pic 2. Left ventricular size depending on the level of BP in children after TP



Pic.3. Dependence of LV ejection fraction from the level of BP in children after TP



Conclusion: Arterial hypertension is typical for transplanted children. Early identification and correction of AH will improve the graft function. The best way to control the BP in these children is DBPM.