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HYPERTENSION(HT), REFLUX NEPHROPATHY(RN) AND HEART DAMAGE

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HT affects 10% of children with RN. The ambulatory blood pressure monitoring(ABPM) allows the early discovery of one of the long term complications of the RN before happening organ damage.

Aim of the study:to evaluate with ABPM 100 normotensive children with RN,to correlate values of HT with the degree of RN,microalbuminuria(Ma) excretion and the decline of GFR, and to select children with borderline HT for a pharmacologic treatment to prevent the risk of organ damage.

Materials and Methods:the patients, mean age of 13.5 ± 5 years were divided in two groups: A(RN I°/II°) and: B(RN III°/IV°). Were calculated: mean SBP-DBP(systolic and diastolic blood pressure), and SBP-DBP load. In children were performed electrocardiogram and standard M-mode, two dimensional echocardiograms, and an evaluation of the left ventricular mass(LVM) with integrated backscatter(IBS). Serum creatinine(Cr) levels,plasma renina activity(PRA) and Ma were defined.

Results: the mean values of 24 h SBP and DBP were higher in the group B than A.The load of SBP-DBP was different between the two groups($p < 0.0005$ for SBP, and $p < 0.002$ for DBP). In group B Ma excretion correlated with mean SBP-DBP, there were statistical significance for mean values of Cr between group B and A($p < 0.01$) In 3/12 patients of group B,all of these with increase load SBP-DBP,LV geometry was abnormal with significantly LVMI more than $51 \text{g/m}^2.7$.

Conclusions:HT correlates with variations of the LVM and the ABPM and the IBS represent the most sensitive methods to point out the risk of hypertension and to prevent any other organ damage.

