SUMMARY AND CONCLUSION

Cardiovascular complications are the most frequern cause of death in children with chronic renal failure.

This study was conducted on 23 children with chronic renal failure (10 male and 13 female! their age ranged from 8 months and 16 year's attending the ephrology Clinic of the Pediatric Hospital Cairo University. All children were subjected to thorough history taking, a complete detailed clinical examination and laboratory investigations including kidney function tests; BUM, creatinine and GFR estimation. Complete blood count including Hb% with serum iron and T1BC. Also serum electrolytes , Ph of the blood , serum bicarbonate level, tolal plasma proteins and cholesterol levels were assessed−

23 children were assessed by echocardiorapny and Doppler studies to determine the structural and functional cardiac abnormalities in children with chrome renal failure، Left ventricular end diastolic (LVED) and end systolic (LVES) dimensions were found in 73.2% and 52.17% of patients respectively. The fractional shortening (FS) of the left ventricle was below normal limits in one – patient had a reversed E/A ratio. Myocardial performance index (MPI) assessing global systolic and diastolic function of the left ventricle was found abnormal in 56.5% of patients and the MPL for the right ventricle was found abnormal in 17.4% of patients even thought none of the patients was clinically in heart failure. The cardiac index (CI) was raised in 60.86% of patients and correlated significantly with the creatinine level and the GFR but not with Hb level , most of the patients being anemic. The mean left ventricular mass index (LVMI) was raised above the mean normal values and correlated again significantly with the GFR but not the Hb levels.

We conclude that children with uremia have significant cardiac abnormalities that are likely to contribute to the high cardiovascular mortality, therefore routine

cardiac evaluation should be part of the management protocols in order to detect and revise factors associated with increased morbidity to improve the survival and quality of life of these children.