I N T R O D U C T I O N

Since the introduction of regular hemodialysis treatment in 1960, prolongation of useful life has been achieved for many thousands of patients (Scribner, 1960).

Long term hemodialysis, however, does not prevent cardiovascular disease. Indeed, cardiac complications on the basis of atherosclerosis are considered to be the commonest cause of death of long term dialysis patients (Linder et al., 1974).

In the dialysed patient cardiac arrhythmias may be precipitated by many factors which are pericarditis, atherosclerotic heart disease, acute myocardial infarction, severe anemia, acute volume changes, congestive heart failure, hyper-and hypokalaemia, hyper- and hypovolemia, hypoxemia, hypocapnia, acidosis,alkalosis hyper and hypocalcemia, hyper and hypomagnesmia, calcific cardiomyopathy and systemic disease (Christina and Fred, 1983).

Arrhythmias occurring during dialysis must be differentiated from pseudoarrhythmias related to the use of blood pump (Matalon et al., 1968).

Hypercalcemia may occur in dialysed patients as

a result of severe hyperparathyroidism or excessive administration of calcium and vitamin D derivatives. Hypercalcemia causes increased myocardial contractility and shortening of the QT interval when levels are 13 mg/dl or higher (Christina and Fred, 1983) .

Serum potassium changes during dialysis are affected both by acid-base balance and by removal of potassium across dialyser. A dialysate potassium concentration of 1.5 mmol/L used on stable patients has not been associated with potassium depletion despite the presence of mild hypokalemia after each dialysis. Severe hyperkalemia produces characteristic electrocardiographic changes and ventricular fibrillation or a systole may result from high levels (7.0 mmol/L or more), acute hyperkalemia may be responsible for many cases of sudden death occurring in dialysed patients (Morgan et al., 1970).

Aim of the Work :

The aim of the present work is to study the changes in the electroconduction of the heart in patients with chronic renal failure under regular hemodialysis.