

## **EARLY REPOLARIZATION ELECTROCARDIOGRAPHIC PATTERN IN END-STAGE RENAL DISEASE PATIENTS ON DIALYSIS**

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End stage renal disease (ESRD) patients present a high risk of sudden cardiac death. Early repolarization electrocardiographic pattern (ERP) has been linked to sudden cardiac death in recent literature. However, ERP prevalence in ESRD patients is not clearly defined. In this study we recorded the presence of ERP in ESRD patients, both on haemodialysis and peritoneal dialysis, and evaluated its association to laboratory parameters.

Eighty seven ESRD patients were subjected to electrocardiogram and blood and urine tests.

ERP was defined as presence of notch or slur in the end of QRS and J point elevation  $\geq 0.1$  mV in  $\geq 2$  contiguous leads. Laboratory tests included total serum protein, serum albumin, serum electrolytes and haemoglobin, and 24-hour total urine protein. ERP and its association with dialysis modality, blood and urine laboratory parameters were recorded.

The data were analyzed with stata software.

Sixteen of 87 patients (18.4%) presented ERP. Low level of serum albumin  $< 3.5$  g/dl (odds ratio 3.6,  $p=0.047$ ), and smoking habit (odds ratio=8.5,  $p=0.02$ ) were significantly correlated with ERP. Furthermore, patients with low levels of serum calcium had significantly higher probability of ERP (odds ratio per unit in calcium increase 0.53,  $p=0.05$ ). No difference concerning the dialysis modality and proteinuria was found.

In this study, ERP in ESRD patients on dialysis was significantly correlated to hypoalbuminemia, hypocalcemia and smoking habit.