

Ventricular arrhythmias in hemodialysis patients: Intradialytic Holter monitoring

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Abstract

Background: Sudden cardiac death is frequent in patients with end-stage renal disease. It seems that ventricular arrhythmias may contribute to mortality. For that reason, it would be important to estimate the frequency of significant intradialytic ventricular arrhythmias in patients with end-stage renal disease on hemodialysis and the relationship between the grade of ventricular arrhythmias and clinical, laboratory, electrocardiogram and echocardiogram parameters.

Methods: Case-control study was performed. 57 patients with end-stage renal disease on maintenance hemodialysis were studied. Holter monitoring was performed the first and second days of dialysis during all hemodialysis sessions. 114 recordings were analyzed.

Results: Ventricular arrhythmias during hemodialysis were noted in 57 recordings (50%). In 24% of them, complex ventricular arrhythmias were found. In logistic regression analysis age >45 (OR: 19.75), male (OR: 12.34), left ventricular hypertrophy (OR: 7.46), bundle branch blocks (OR: 10.98), post-dialysis urea >9 mmol/L (OR: 5.04) were independent predictors associated with complex ventricular arrhythmia.

Conclusions: Complex ventricular arrhythmias were detected in a significant proportion of patients with end-stage renal disease during hemodialysis. Age, male, left ventricular hypertrophy, bundle branch blocks and post-dialysis urea were predictors of complex ventricular arrhythmia.

Biography

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