

Società Italiana di Cardiologia



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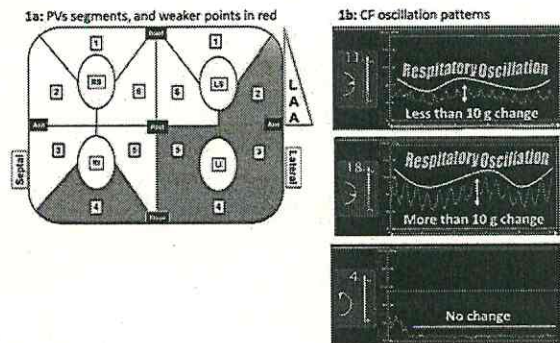
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PROGRAMMA

**Conclusions:** The new force sensor equipped ablation catheter appears to be useful to prevent complications and limits the amount of low or no contact ablation that may result in inadequate lesions. The amount of median resulting CF related inversely to the amplitude of beat-by-beat CF oscillations and directly related to the presence of a respiratory pattern. There was no correlation between CF and the energy delivered. Larger populations and longer follow-up studies are needed to investigate this further.



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### The pro-arrhythmic effects of iron overload in patients with end-stage renal diseases.

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**Introduction:** Cardiovascular diseases are a common cause of death in patients with end-stage renal diseases. Hemodialysis patients frequently have an abnormal iron metabolism, that may cause QT prolongation associated with increased risk of arrhythmias. Moreover high serum ferritin concentration is correlated with metabolic syndrome.

The aim of our study was to describe whether serum ferritin concentration correlate with increased cardiovascular risk and arrhythmias in hemodialysis patients.

**Methods:** We evaluated 58 (39 males,  $58.7 \pm 15.1$ ) patients with end staged renal disease, undergoing dialysis at our Institute. Patients were divided into high (HFer) and low (LFer) ferritin level groups. The median serum ferritin level of the group (121 mg/l) was used as the cut-off point to separate subjects into the HFer (19 patients) and LFer groups (19 patients). ECG, echocardiographic parameters, lipid profile, blood plasma glucose, electrolytes, body mass index (BMI) were analyzed. ECG Holter data were available in 42 patients (22 in LFer group and 20 in HFer group).

**Results:** No statistically significant differences were found between two groups at the baselines. Patients with high ferritin levels had lower HDL cholesterol (31.5 vs 39.3;  $p=0.03$ ) and higher BMI than patients with low ferritin concentration (27 vs 24;  $p=0.03$ ). Moreover NSVT were more common in HFer group (4 vs 0;  $p=0.05$ ), such as the incidence of ventricular ectopic beats (562 vs 92;  $p=n.s.$ ). Other ECG Holter data were not significantly different between HFer and LFer groups (QTc: 380 vs 421 msec).

**Conclusions:** Iron overload is associated with metabolic risk factors in patients with end stage renal diseases, undergoing dialysis and with increased risk to develop metabolic syndrome. Despite the small size of population, we observed a trend of a higher rate proarrhythmic effects in Hfer group, probably associated with the production of free radicals.