

Correlation Between T Wave Inversion and Incidence of VT in Patients with ARVC (Single Center Experience)

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OBJECTIVE:

To establish a correlation between T wave inversion and the incidence of VT in patients with ARVC.

METHODS AND RESULTS:

We retrospectively evaluated the 12 lead surface ECG at time of presentation for 13 patients presented to our inherited arrhythmia clinic diagnosed as ARVC according to the task force modified criteria, we studied the distribution of T wave inversion and evaluated the incidence of ventricular arrhythmias either by Holter monitoring or by interrogation of the ICDs which were received as a secondary prevention.

Out of those patients, 9 experienced recurrent attacks of sustained ventricular arrhythmias as showed in Figure 1

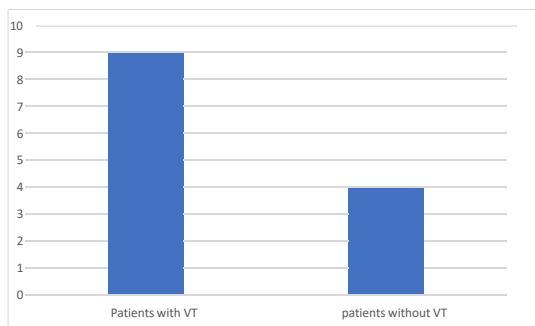


Figure 1

In patients who didn't experience any ventricular arrhythmias only one patient showed T wave inversion in all chest leads, however the three remaining patients

showed no T wave inversion in their resting surface ECG with overall sensitivity of 69 % and specificity of 80 %.

Around 56 % of patients who experienced attacks of ventricular tachycardia showed T wave inversion in all chest leads while 11 % of patients showed T wave inversion in V1. 22 % of patients showed T wave inversion from V1 to V4. 11 % of patients showed no T wave inversion.

Distribution of T wave inversion in patients who had VA is illustrated in figure 2

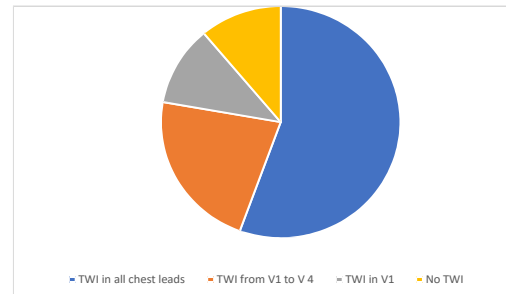


Figure 2

CONCLUSION:

Despite the small number of patients included in our study, we found that the presence of T wave inversion can be correlated with the burden of ventricular arrhythmias in such patients. And we also found that the spread of T wave inversion (especially in chest leads) is positively correlated with the incidence of ventricular arrhythmias.