

2nd International Conference on
Clinical Research
Cardiology, Ophthalmology & Dermatology

5-7 March 2012 Omaha Marriott, USA

**Analysis of human
atrial repolarisation
phase of
electrocardiogram in
normal subject**

J.Sivaraman¹, G.Uma²,
M.Umapathy³

¹Research Scholar,

²Assistant Professor,

³Professor

Department of Instrumentation and
Control Engineering, National Institute
of Technology, Tiruchirappalli,
TamilNadu-620015, India

Data on the phase of human atrial repolarisation waveform has not been studied widely but it provides a useful diagnostic marker for the atrial related arrhythmias. Since the large ventricular QRS complex obscures the wave, the atrial Ta wave is not seen in normal subjects. However during third degree AV block the atrial Ta wave has been studied and it is observable in the PR segment. The conventional 12 lead ECG views the electrical axis of the heart in the frontal and the transverse plane and the 12 leads emphasis more on the lateral, inferior, septal and anterior aspects of the Ventricles. A modified chest lead system is proposed to provide more information on atrial Ta wave in normal subject. ECG traces were recorded and analyzed simultaneously for the normal subject with the proposed modified chest lead and the conventional bipolar limb leads in the CRO. A negative wave was found in the PR segment which is found to be non iso-electric and had duration of 0.14 sec claimed due to the atrial repolarisation wave. The atrial Ta wave has the opposite polarity, and the duration is generally larger than that of the P wave.