



**TRANSTELEPHONIC
ECG WITH BLUETOOTH TECHNOLOGY:
A NEW FRONTIER IN CARDIOLOGY**

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**CENTRO MEDICO VESALIO
PADOVA - ITALY**

**Adriatic Vascular Summit
September 8-10, 2011 St. Bernardin Conference Center
Portoroz, Slovenia**

BACKGROUND

- The number of Patients with cardiac disease increases with the age. Many Patients complain no specific symptoms. The present study analyse the impact of asymptomatic ECG events.

PATIENTS

- We enrolled 12 Pts; 8 males, 4 women, median age 65 (range 51-81), all with chronic ischemic heart disease on treatment and mostly without symptoms.

METHODS

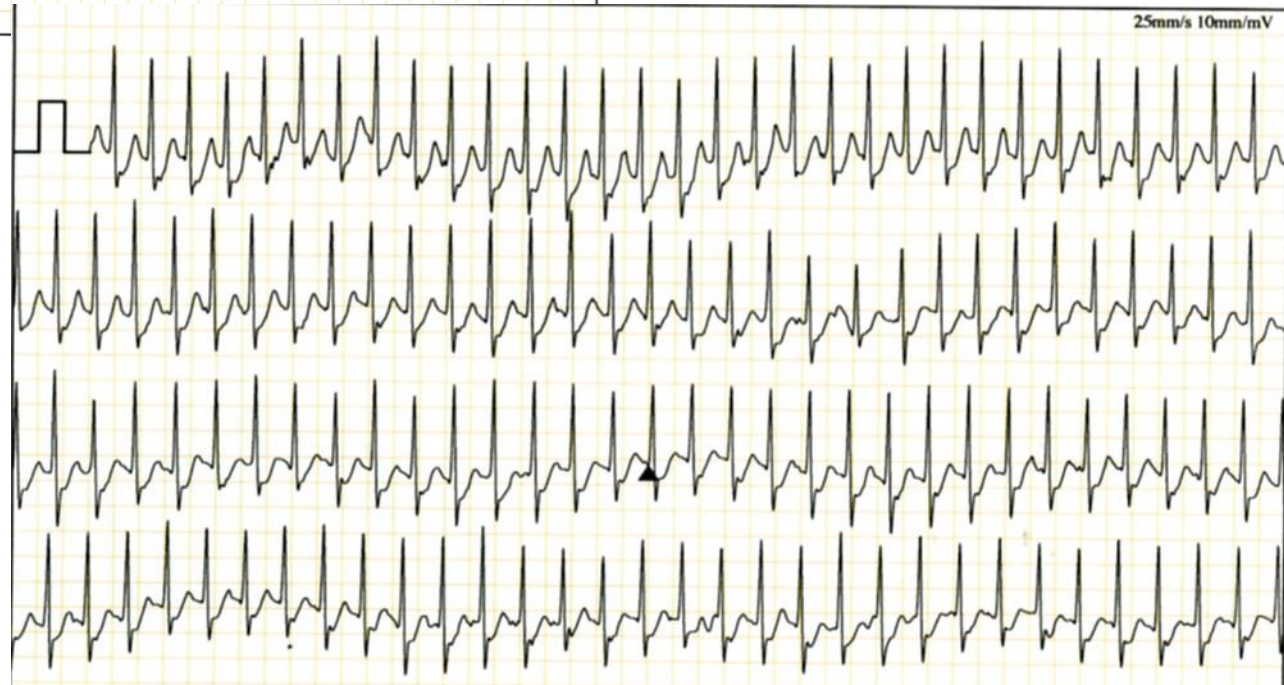
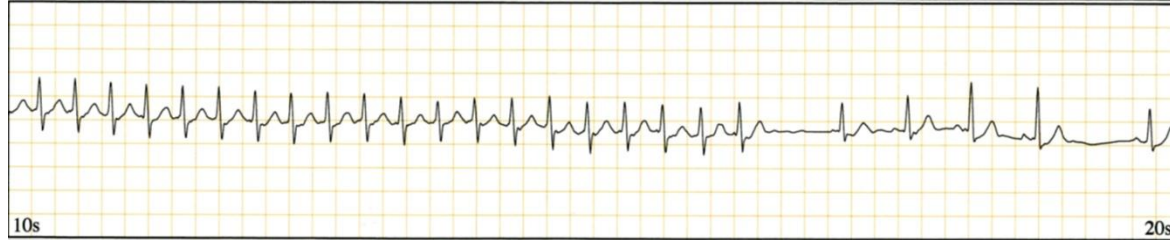
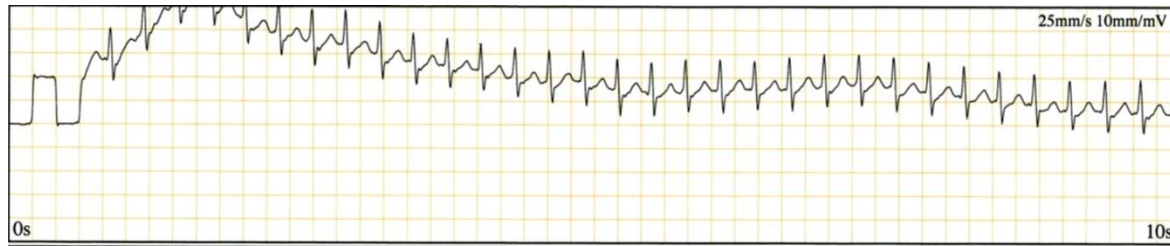
- We used a Loop-Recorder with Bluetooth transmission. Each Patient had this device for 10 days. For the first time ever, with this equipment it is possible to record events with a single channel ECG standard recording, to recognize automatically any pathological changes in the ECG and to transmit ECG data either with Bluetooth and mobile phones as well as acoustically.
- If the transmission is by Bluetooth connection it does not matter if recorder and phone are up to 10 meters apart. The multifunction buttons allow to adjust the Loop-Recorder to the Patient's individual requirements. In any case, the ECG is transmitted to a dedicated server-data center and then by email or fax to the cardiologist.



RESULTS

- ECG data were analyzed by a cardiologist and the following changes have been found:
- 7 Pts had supra-ventricular tachyarrythmia ranging among 110 and 187 bpm;
- 1 Pt had supra-ventricular ectopic beats;
- 2 Pts had sinus tachycardia;
- 4 Pts had ventricular ectopic beats (1 monomorphyc, 1 polimorphyc, 1 couplets and 1 polimorphyc couplets);
- 4 Pts has ST changes among 1 and 3 mm; 2Pts had T waves changes.
- No Pts complained cardiac symptom except one who had an angina-like pain with supra-ventricular tachycardia (180 bpm)with ST changes

ECG EXAMPLES



CONCLUSION

- Our data show that the majority of Pts had asymptomatic ECG changes sometimes relevant