

## **Subject : ECG -Event Monitor**

### **The lethal effect of the “management” stress and lifestyle to the coronary arteries**

The hardening of the coronary arteries and the risk of the ischaemia related heart abnormalities are more frequent by the ageing in both males and females.

Sadly – according to the health statistics worldwide – in the last decade the frequency of the heart failures has been increased in a relatively young age group – Men under 45 years of age, women under 55 years of age. This trend has been signposted with the increased frequencies of all kinds of heart illnesses and cardiovascular events. Many studies have been conducted Worldwide to investigate the causes of this life-shortening trend of the more and more frequent heart attacks and all of them pinpointed to one common attribute: the *A personality*.

The *A type personality* (an idealised personality type for young managers) characterised by: hyperactive lifestyle; always in a hurry; impatient and highly competitive; strictly result driven; being constantly under stress. Type “A”s tend to put their career above everything else, ruining their health and also their family life in the bargain. The stress itself has a positive effect in the career as the increased energy levels will pose these people as high achievers. The trouble starts when they cannot switch off, cannot relax and as the type “A” behaviour keeps the inner engine overheated the balance of the system is disturbed, leading eventually to a breakdown, or cardiac crisis. Type “A”s were heading straight for heart trouble with the same enhanced risk for cardiac disease as sedentary, hypertensive, junk-food eating people face. These – initially – psychosomatic symptoms will show as frequent angina, heavy breathing or heartbeat abnormality (called arterial fibrillation). If the stress is sustained the symptoms will result in real organic diseases.

An examination of the patient would not detect any physical changes in the beginning of the symptoms and would not cause any permanent problem. However the sustained stress for a long time is directly blamed for many serious illnesses later in life.

How do you react is up to you! You either make an appointment with your local GP or cardio specialist or do nothing and ignore the symptoms.

The trouble is that when the patient arrives to the consultation room all the symptoms are disappeared and the result of the rest ECG diagnosis will not show any abnormalities.

But it is well accepted in medical scientific circles that an ECG recording which has been taken while the patient has no symptoms usually has no valuable information to predict or alert to cardiac events or imminent heart attack.

The negative rest ECG result will only cause more anxiety for the patients and in the cases of reoccurring events they will have doubt about the next step. (usually will try to ignore it). The Stress ECG test will be able to map with much better sensitivity and accuracy the cardiac condition of the patient, but the result also can be negative as his / her symptoms are triggered by non physical stress.

The solution can be straightforward such as eliminate the negative stress from our life have a healthy diet and do regular exercise.

Sadly most of us only ready to do radical changes in our everyday lifestyle when it is too late or after a serious life threatening event (heart failure, heart attack).

It would be a great assistance to people under constant stress having a handy device which not only easy to operate and record the ECG at the time of the occurrence of the symptoms but having some sort of a feedback about the seriousness ( diagnosis ) about the condition. This would be great help to the health professionals because the patient would bring the ECG recordings to the consultation where the doctor after interpreting the results could either assure the patient the patient or start an appropriate therapy .

The great majority of the people even if they have a health problem would not go to the doctor because they can not even tolerate the time spent in the doctors waiting room. For them the availability of a handy home ECG device or similar ( like Cardio Clip) also would be an ideal solution.

In summary we can say that the stress can cause number of symptoms which can be equivalent to the angina but not necessarily caused by physical changes in the body. A portable home ECG ( or long time halter event recorder) would give a patient a peace of mind reducing his/her unnecessary anxiety as well, if necessary, would alert to contact the doctor.

#### **Some example**

**53 years old woman.** - Her observation was what felt like her heart stopped for a moment and then restarted with a big bang. Also in the same time she felt dizziness near to fainting. A routine rest ECG and two Holter ECG monitoring sessions (the second was for 5 days) has shown negative result. The patient has no symptoms during those periods! Having been given the CARDY- Home to measure her own ECG at the time of discomfort (after the second measurement) allowed us to diagnose a “bigeminia” with her. During that time her heart-rate was 38/min.

**21 year old man.** - The complaint was irregular (2-3 months interval) but then fast approaching dizziness which were acute for hours and terminated with vomiting. Additional observation was that during that period his heart was throbbing in an incredible rate “wanting to jump out of his throat“. Many of these instances the emergency was called but on arrival the condition of the man was normal and nothing could be diagnosed. The usual treatment was to inject him with a sedative. He even was blamed that his “neurosis“ was triggered by wanting to avoid the national army service . After 3 months of giving him CARDY the positive diagnosis has been recorded “supra ventricular paroxysmal tachycardia” with a heart rate of 218/min!