

## **Case Report**

### **“Never Say LATER again” in suspicious cardiac event: a case of acute coronary syndrome presenting at 72-hour after initial symptoms, and insight into a better health service**

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**Abstract:** Cardiovascular diseases represent a significant health burden as they represent the first cause of mortality in the world. We report on a 44-year-old-male patient admitted with atypical presentation of anterior myocardial infarction; following delayed admission, the patient had his percutaneous coronary intervention performed nearly 75 hours after beginning of symptoms. Discussion is made while highlighting the importance of time delay in this context, namely in the perspective of preserving the myocardium and preventing sudden cardiac death; also the quality of health service is essential in term of public awareness, primary and secondary prevention, prompt transfer to medical facility and timely door-to-balloon coronary intervention.

**Keywords:** atypical presentation; acute coronary syndrome; misleading; sudden cardiac death; health service.

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#### **INTRODUCTION**

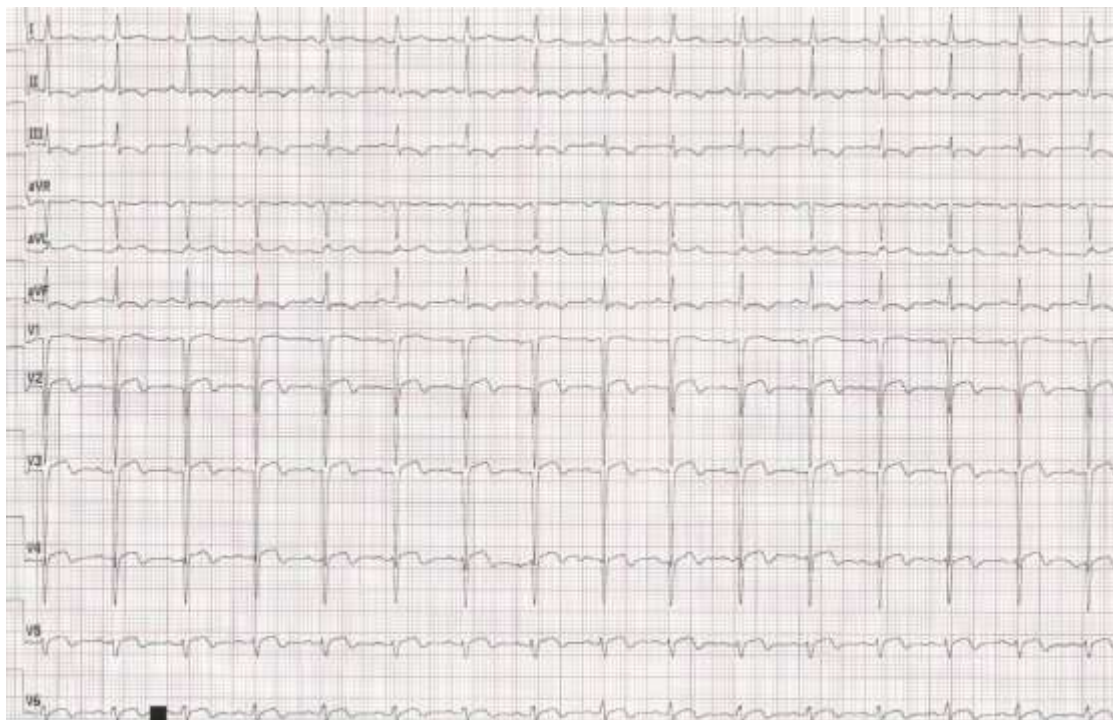
Cardiovascular diseases are the number one cause of mortality in the world, namely coronary artery diseases which represent a significant health burden owing to sudden and non-sudden cardiac death. Improving health service in this regard must be directed to enhance public awareness in terms of primary and secondary prevention, early recognition of cardiac symptoms and timely transfer to medical facility in suspicious cardiac syndrome. We report on a patient with acute coronary syndrome who presented to the hospital three days after beginning of his initial symptoms.

#### **CASE PRESENTATION**

We report on a 44-year-old-male patient with no relevant medical history who presented with an epigastric pain lasting since three days, with fluctuating intensity and with no other associated symptoms. Of note, the patient had a “by-phone” initial consultation 4-hours after the beginning of symptoms and a gastro-intestinal illness was suspected for which no

medications was given; however, he was advised to consult a Cardiologist “Later” if his symptoms persist for more than 24 hours.

The patient presented for a “regular” cardiac consultation on day 3 after beginning of symptoms and without previous appointment, also he refused to be admitted via the Emergency department and he waited nearly 90 minutes to be seen by a cardiologist. After history taking and physical examination, the EKG (figure 1) showed a sub acute anterior transmural myocardial infarction. Emergent cardiac echogram showed extensive antero-septal akinesis, with ejection fraction at 45%; this was followed immediately by coronary angiogram (figure 2) that showed a sub occlusive lesion of the proximal left anterior descending artery which was successfully dilated and stented at nearly 75 hours after initial symptoms. The immediate follow-up period was unremarkable, and the patient left on day 5 with dual anti-platelet therapy, statin, angiotensin-converting enzyme inhibitor and beta blocker.



**Fig-1: Electrocardiogram showing sinus rhythm, relative tachycardia at 95 bpm, pathological QS wave with ST/T changes in anterior leads compatible with extensive sub acute anterior myocardial infarction.**



**Panel A**

**Panel B**

**Fig-2: Coronary angiogram: Panel (a): right coronary artery with mild mid-segment stenosis; Panel (b): Sub occlusive proximal left anterior descending artery stenosis.**

## DISCUSSION

In the setting of acute coronary syndrome, it is classically recognized that “time is myocardium” and delay to perform coronary revascularization is hazardous as it predisposes to extensive myocardial necrosis, heart failure and sudden cardiac death [1].

In the presented patient, many factors have lead to repetitive delays to diagnose and treat the

condition: first the presentation of acute coronary syndrome with symptoms suggesting gastrointestinal illness is misleading; nevertheless, it is not advised to perform a by-phone consultation. In this case, epigastric pain was consecutive to acute coronary syndrome with anterior location and this is unusual, however it may be related to anatomical (neuro-vascular) variation as it has already been reported [2]. Second the patient presented to regular cardiology consultation and not to the

emergency department, and thereby the “door-to-diagnosis” was delayed and consequently “door-to-balloon” was delayed (nearly 180 minutes) far beyond the delay stated by recommendations (< 90 minutes) [3].

Cardiovascular diseases still represent a serious health burden as they represent the number one cause of death in the world. Moreover, it is estimated that nearly one-third of patients with acute coronary syndrome die before arrival to medical facility [3]. Accordingly, prevention and appropriate management of cardiovascular diseases is crucial in this perspective. In this regard, public awareness is fundamental, namely regarding primary and secondary prevention, early recognition of suspicious symptoms, and timely call for transfer to medical facility. Moreover, early revascularization in the advised time delay is necessary as stated by guidelines.

### CONCLUSION

Cardiovascular diseases represent a serious health burden, also nearly one-third of patients with acute coronary syndrome die before arrival to a medical facility. Patients, health workers and Physicians must avoid the term “later” when it comes to suspicious cardiac condition. Health service may be improved in this regard with enhancement of public awareness in term of primary and secondary prevention, early recognition of suspicious symptoms and timely transfer to medical facility. This case illustrates a scenario where postponing may have lead to “mourning” (death) and where a lot of “small” things could have lead to a big “Sink” (sudden cardiac death).

### REFERENCE

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