



BMH Med. J. 2019;6(1):25-28. **Case Report**

“Beware of Burp” : Unusual Presentation of Inferior Wall Myocardial Infarction

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Abstract

Central chest pain and discomfort are the most common symptoms of a patient with acute coronary syndrome. Diaphoresis, dizziness, shortness of breath, fatigability and nausea have been described as angina “equivalents”. Acute coronary syndrome can at times manifest with atypical symptoms like hiccups, belching, pharyngeal pain etc., which can mislead both the patient and the clinician. We report an unusual case of inferior wall ST elevation myocardial infarction where the patient experienced abnormal belching that brought him to a physician and a routine ECG showed ST elevation in inferior leads. Coronary angiogram showed near-total occlusion of left anterior descending and right coronary arteries. He recovered well with percutaneous coronary intervention.

Key words: Belching, Acute inferior wall myocardial infarction, STEMI

Introduction

“Eructonesius” or belching is a normal physiological process of venting air accumulated in the stomach through mouth, by which abdominal distension is relieved. It is rarely severe that a patient seeks medical attention and usually visits a Gastroenterologist or a physician if needed. Acute Myocardial Infarction (AMI) is known to present with a variety of unusual symptoms, which sometimes may not be even related to cardiovascular system. Low back ache [1], pharyngeal pain [2], ear pain [3] etc., have been described as presenting features of AMI. Belching as a symptom of AMI is extremely rare and a detailed literature search showed only one case report [4]. Therefore we bring this exceptional case to the notice of medical fraternity especially to the primary care physicians, who are the first contacts to these patients.

Case report

An elderly hypertensive male who was a smoker experienced troublesome belching associated with “catch in breath” in the night because of which he could not sleep. He had recurrent belching in the past but he found this ordeal quite unusual, which took him to a local clinic after 6 hours. ECG showed Q waves in lead III, subtle ST segment elevation and T wave inversion in leads III and aVF,

tall T waves in precordial leads and Right Bundle Branch Block (RBBB). While travelling from his place to our centre, he developed chest discomfort associated with diaphoresis. On arrival at our casualty, he was conscious with a BP of 160/100 mmHg, pulse was regular at a rate of 90 beats per minute, respiratory rate was 24 per minute. Cardiovascular examination revealed feeble bilateral dorsalis pedis pulsations, respiratory examination revealed bilateral rhonchi. Other systems were normal. Repeat ECG showed prominent ST elevation and T wave inversion in inferior leads with reciprocal changes in anterolateral leads and RBBB (**Figure 1**).

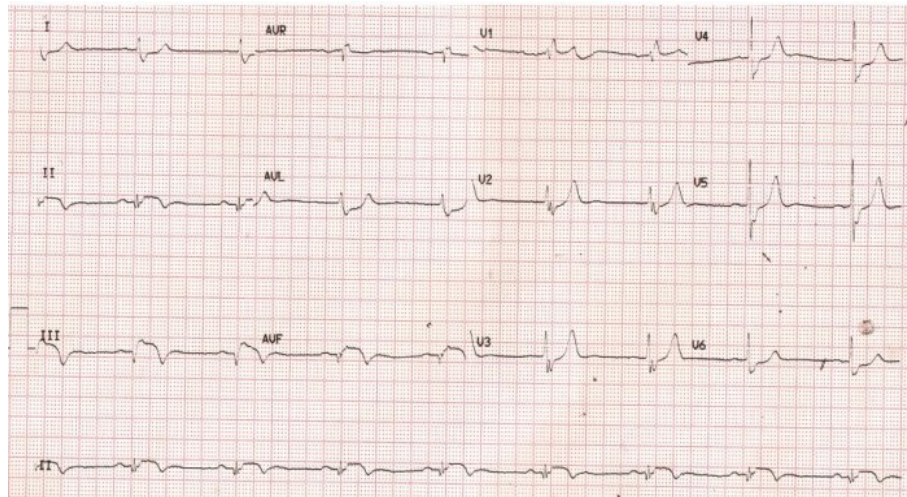


Figure 1: ECG showing Q waves, ST segment elevation and T wave inversion in leads II, III and aVF; sinus bradycardia; RBBB

Echocardiogram revealed hypokinesia of midinferior and inferolateral segments with left ventricular ejection fraction of 61%. He was taken up for coronary angiogram (CAG) and it showed 90% stenosis of mid left descending artery (LAD) and 99% stenosis of right coronary artery (RCA) (**Figure 2**).

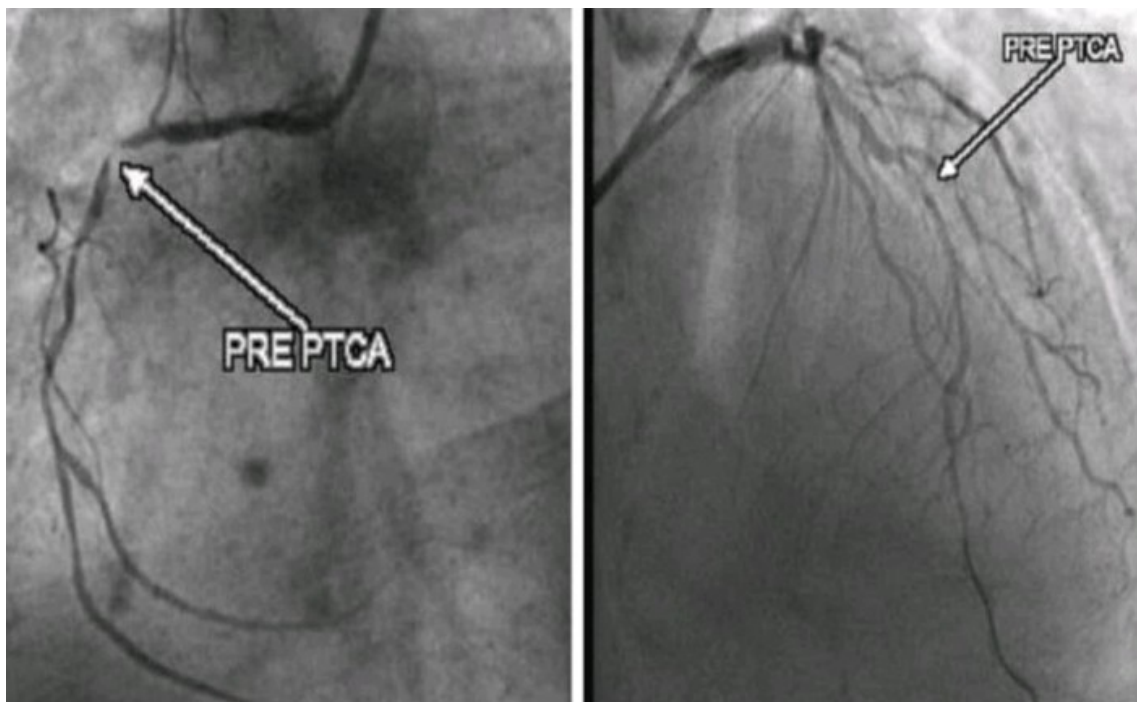


Figure 2: CAG showing near-total occlusion of RCA (right) and LAD (left)

He underwent primary percutaneous coronary intervention (PCI) to RCA and staged PCI to LAD with drug eluting stents (DES) and a thrombolysis in myocardial infarction (TIMI) grade 3 coronary flow was achieved (**Figure 3**).

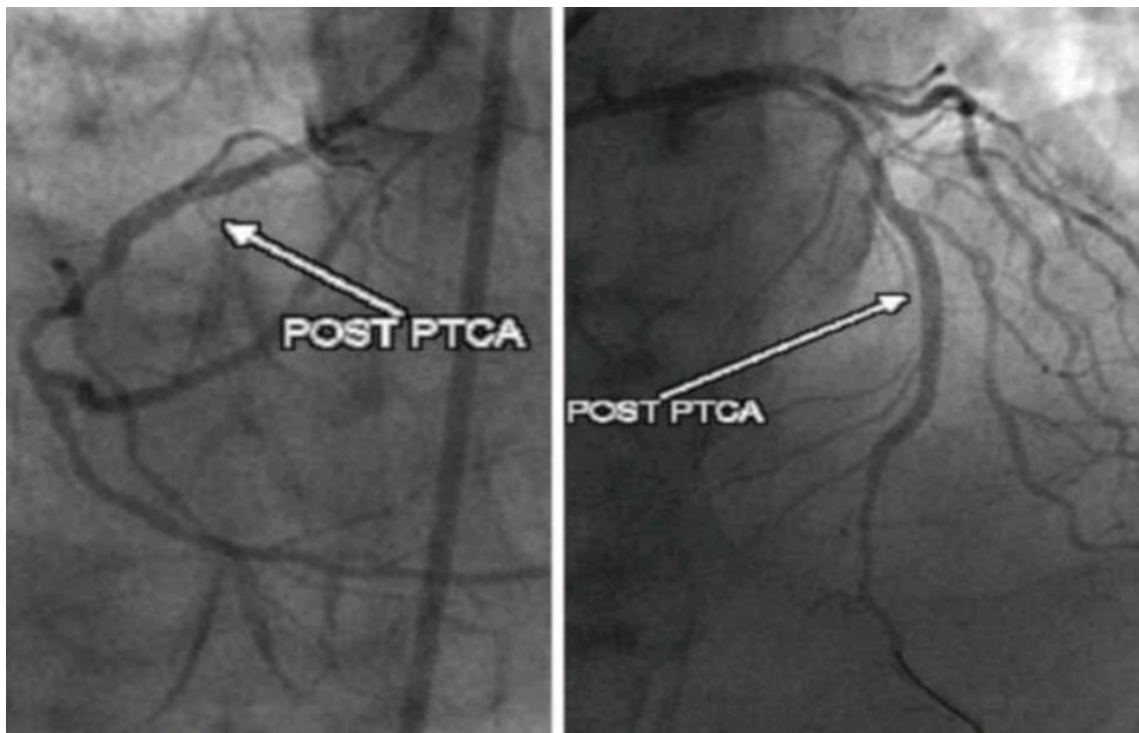


Figure 3: CAG after PCI showing TIMI grade 3 flow in RCA (right) and LAD (left)

He recovered well with dual anti-platelet therapy and statin and was discharged on 5th day.

Discussion

AMI can rarely present with trivial symptoms like belching, hiccups, low back ache and sore throat. Many patients postpone attending to a clinic and resort to home remedies which leads to delay in the diagnosis and hinders timely management. Our patient initially had an unpleasant belching and went on to develop chest discomfort much later. He was fortunate enough to have ECG changes suggesting AMI that prompted the primary care physician to refer him to a cardiologist and subsequently he received definitive management before his hemodynamics deteriorated. This delay can partly be attributed to the lack of awareness among general population given the rarity of belching being associated with AMI. It is usually considered a feature of gastro-esophageal reflux or dyspepsia and hence ignored.

Belching was ascribed to inferior wall AMI for the first time in a study reported by Darsee JR in 1978 [5]. An observational study involving 1546 patients who were admitted with AMI showed belching as a symptom in 18.4% of the patients. Of this, 22.8% had inferior infarction [6]. Belching occurs as a result of relaxation of Lower Esophageal Sphincter (LES) which is mediated by vagal activation. It is propounded that inferior wall AMI is associated with vagal stimulation which results in various vagally-mediated responses like hiccups, belching, nausea, vomiting etc [6]. Awareness about unusual symptoms of AMI is of utmost importance for early recognition and definitive management.

Conclusion

Non-serious symptoms like belching, hiccups, low back ache, otalgia are often ignored by the patient due to unawareness of the fact that they can also be features of AMI sometimes. Patients should be encouraged to visit a doctor immediately in situations where even minor symptoms turn unpleasant. It is also crucial to realise burping is not always a feature of gastro-esophageal disease but at times can be associated with more serious conditions like AMI. It is high time clinicians create widespread awareness among public on correlation of these symptoms with AMI.

References

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