

Acute chest pain... Where?

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Abstract

Acute chest pain is a common symptom in emergency medicine. Approaching acute chest pain in emergency departments is a challenge epidemiologically, clinically and organizationally [1]. This symptom requires increased attention from medical professionals, this requiring a primary and careful evaluation for patient, imagining and paraclinical investigations. Attention should also be paid to cardiovascular risk factors (age, high blood pressure, smoking, pre-existing cardiovascular disease, obesity) [2]. In emergency medicine, primary assessment consists of ABCDE evaluation (1. Airway, 2. Breathing, 3. Circulation, 4. Disability, 5. Exposure) [3].

Keywords: Acute chest pain; Emergency medicine; Cardiovascular risk factors; Primary assessment.

Introduction

For this mini-review, an intense search was carried out in Google Scholar, PubMed and MDPI, selecting the most recent articles on acute chest pain in emergency department. This mini-review brings in spotlight, the approach of patients with acute chest pain non-traumatic, in emergency departments, especially in low-income-medium hospitals. Troels Thim and colab., in a research performed in 2012, they are talking about ABCDE evaluation, as useful to all patients; it is also a useful tool in medical and surgical emergencies, this helping in prompt treatment for both before hospital and in hospital [3]. In emergency departments, chest pain should be evaluated immediately and medical professionals must decide whether it is really a medical emergency or not. Traditional diagnostic evaluations involves performing anamnesis, physical examinations and performance of the EKG in 12 derivatives (mandatory) [4]. Most of the time at this presentation in the emergency department acute chest pain is accompanied by other symptoms. Among the causes of chest pain, life-threatening are acute myocardial infarction, pulmonary embolism, pneumothorax, cardiac tamponade, aortic dissection and esophageal perforation [5]. Other causes of chest pain are represented by chest wall pain, pneumonia and gastro-esophageal reflux diseases [5].

Discussion

In the emergency department according to the study performed by Paul I. Musey and colab., chest pain is the second cause of presentation. Specialists often pay attention to acute chest pain of cardiac cause, trying to exclude such dissection of the aorta, acute coronary syndromes, pulmonary embolism and pneumothorax [6]. Association of neoplastic disease and acute coronary syndromes are causes of death in both high and low in some countries [4-6]. In the research by Paolo Bima and colab 2023, we can note that: patients with neoplastic pathology have a very high risk of myocardial infarction, when they come in emergency department with acute chest pain [6,7]. Daniela Barroso and colab., report a rare case of spontaneous pneumomediastinum which began with acute chest pain associated with other symptoms [8]. In emergency department, doctor has the obligation to exclude life-threatening chest pain causes, take into account that sometimes patients may show minimal symptomatology, when they come in emergency; for example, a research performed by Flavio Morello and colab., they draw attention to acute aortic syndromes as rare conditions that may present with non-specific signs and symptoms. In the case of these conditions it is necessary to perform an angiocoronarography with a substance of contrast [9].

Conclusion

The role of qualified staff in emergency departments regarding the patient with acute chest pain is to examine, evaluate and treat the patient. Interdisciplinary consultations (for example, cardiological consultation) are absolutely necessary. It should be remembered that performing on electrocardiogram and cardiac troponin, they can exclude acute coronary syndrome and using ultrasonography helps the doctor of emergency medicine in making a decision on treatment and of course on differential diagnosis [10]. In front of the patient with acute chest pain, the doctor will take into account. The presence of risk factors, the nature of pain, the associated symptomatology and the outcome of the paraclinical investigations or appropriate therapy.

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Manuscript Information: Received: November 25, 2023; Accepted: December 18, 2023; Published: December 20, 2023

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Citation: Gabriela-Florentina Ț, Băgescu-Drugă F. Acute chest pain... Where?. *Open J Clin Med Case Rep.* 2023; 2173.

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