



شبكة المعلومات الجامعية
التوثيق الإلكتروني والميكروفيلم

بسم الله الرحمن الرحيم



MONA MAGHRABY



شبكة المعلومات الجامعية
التوثيق الإلكتروني والميكرو فيلم



شبكة المعلومات الجامعية التوثيق الإلكتروني والميكرو فيلم



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التوثيق الإلكتروني والميكروفيلم

جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

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Atypical Presentation of Ischemic Heart Disease in Egyptian Elderly

Thesis

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قالوا

سببنا أنك لا تعلم لنا
إلا ما علمتنا أنك أنت
العليم العظيم

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List of Abbreviations

Abb.	Full term
<i>ACS</i>	<i>Acute coronary syndromes</i>
<i>AHA</i>	<i>American Heart Association</i>
<i>AMI</i>	<i>Acute myocardial infarction</i>
<i>BMI</i>	<i>Body mass index</i>
<i>CAC</i>	<i>Coronary artery calcium</i>
<i>CAD</i>	<i>Coronary artery disease</i>
<i>CCTA</i>	<i>Coronary computed tomography angiography</i>
<i>CHD</i>	<i>Coronary heart disease</i>
<i>CKD</i>	<i>Chronic kidney disease</i>
<i>CMR</i>	<i>Cardiac magnetic resonance imaging</i>
<i>CTA</i>	<i>CT angiography</i>
<i>CV</i>	<i>Cardiovascular</i>
<i>CVD</i>	<i>Cardiovascular Disease</i>
<i>DALYs</i>	<i>Disability-adjusted life years</i>
<i>ECG</i>	<i>Resting electrocardiogram</i>
<i>ECHO</i>	<i>Resting Echocardiography</i>
<i>HDL</i>	<i>High-density lipoprotein</i>
<i>HIV</i>	<i>Human immunodeficiency virus</i>
<i>ICA</i>	<i>Invasive coronary angiography</i>
<i>IHD</i>	<i>Schemic heart disease</i>
<i>INOCA</i>	<i>Ischemia and no obstructive coronary artery disease</i>
<i>LBBB</i>	<i>Left bundle branch block</i>
<i>MINOCA</i>	<i>Myocardial infarction with no obstructive coronary artery disease</i>
<i>NHP</i>	<i>National Hypertension Project</i>

List of Abbreviations (Cont...)

Abb.	Full term
<i>NSTEMI</i>	<i>non-ST-segment elevation myocardial infarction</i>
<i>PET</i>	<i>Positron emission tomography</i>
<i>PTP</i>	<i>Pretest probability</i>
<i>RA</i>	<i>Rheumatoid arthritis</i>
<i>RWMA</i>	<i>resting wall motion abnormality</i>
<i>SCAD</i>	<i>Suspected coronary artery disease</i>
<i>SLE</i>	<i>systemic lupus erythematosus</i>
<i>SMI</i>	<i>Silent myocardial ischemia</i>
<i>SPECT</i>	<i>Single-photon emission CT</i>
<i>SSc</i>	<i>Systemic sclerosis</i>
<i>STEMI</i>	<i>ST-segment elevation myocardial infarction</i>

INTRODUCTION

Ischemic heart disease (IHD) is a major public health challenge globally especially in elderly, it is a leading cause of death worldwide (*Khan et al., 2020*). Age is the strongest factor related to the development of IHD. In elderly IHD is the leading cause of morbidity and mortality (*Madhavan et al., 2018*). IHD affects around 126 million individuals (1,655 per 100,000). Men were more commonly affected than women, and incidence typically started in the fourth decade and increased with age (*Khan et al., 2020*). The American Heart Association mentioned that approximately 17.9 million people die from heart disease that represents 31% of the total deaths in the Western countries. It is expected that the prevalence of IHD will spike up to 43.9% by 2030 (*Ibdah and Rawashdeh, 2020*).

In Egypt, according to latest WHO (World Health Organization) data published in 2018 estimated deaths due to CAD to be about 163,171(29.38%). The age adjusted death rate is 271.69 per 100,000 population, which makes Egypt rank 15 in the world (*WHOR, 2018*).

Atypical presentations of the disease are defined as patients with unusual signs and symptoms or without any signs and symptoms or even the opposite of what is usually expected (*Limpawattana et al., 2016*). Older patients may present with nonspecific and vague symptoms of CHD rather than classic angina pectoris (*Dai et al., 2016*).

Changes in cardiovascular physiology with normal aging and prevalent comorbidities result in differences in the symptoms and effects of CAD (*Sarotar and Lainscak, 2016*).

The commonest presentation of CAD in elderly is chest pain but frequently they present by atypical symptoms. Nearly 80% of patients < 65 years old present with chest pain, and only 40% of those > 85 years report chest pain. Absence of chest pain lead to misdiagnosis or delayed diagnosis, which worsens outcomes (*Engberding and Wenger, 2017*).

The common forms of atypical symptoms in the elderly presenting with CAD that have been mentioned in previous studies are: dyspnea, epigastric pain, diaphoresis, fatigue, nausea, vomiting, altered mental status, and refusal of feeding, dizziness and syncope (*Engberding and Wenger, 2017*).

Presence of atypical presentation in elderly may be because there are multiple factors occur as patient ages including autonomic neuropathy, injury to cardiac sensory afferent nerves due to past ischemic heart disease, cortical failure resulting from cerebrovascular or other central nervous system disease, extensive comorbidity, higher pain thresholds, and pre-existing mental status abnormalities, these factors all contribute to a higher rate of atypical presentation and unrecognized AMI among the elderly (*Jung et al., 2017*).

As far as we know there is little information about atypical presentation of IHD in our area. But in Bagdad Teaching Hospital study, it was reported that from a total number of 624 patients admitted and diagnosed with ACS, 18.7% of patients presented with atypical presentation of ACS. Most common atypical presentation was dyspnea (43%) followed by altered mentation (15%) and (9%) with abdominal pain (*Musab, 2019*).

In GULF study from 5349 patients admitted, (83%) had typical chest pain, 401(6%) had atypical chest pain, and 670 (11%) had dyspnea. Other presentations include loss of consciousness (1.1%), palpitation (1.1%), others (2%) (*El-Menyar et al., 2011*).

Reports of prevalence of atypical IHD presentation in elderly are variable worldwide, in India the reported prevalence is 20% (*Sandhya et al., 2017*) while in Korea is 24.8% (*Jung et al., 2017*).

As early recognition and management of atypical presentation reduce the risk of misdiagnosis which results in positive health outcomes, reducing the risk of new comorbidities, reducing hospital length of stay and improving quality of life (*Gray-Micale et al., 2010*).

So it is important to know the prevalence and forms of this atypical presentation among Egyptian elderly for rapid recognition and management.

Research question:

What is the prevalence of atypical presentation of IHD in a group of an elderly patients attending Geriatric outpatient clinic in Geriatric hospital in Ain Shams University?