Original Article

Risk factors of Acute Coronary Syndrome at Prince Ali Bin Alhussein hospital

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Abstract

Objective: The aim of this survey to identify the relationship between ACS and its risk factors and the association between the risks factors themselves. **Method:** A retrospective study depends on the registered files of the admitted patients to Prince Ali Bin Alhussein hospital with ACS since April 2013 till October of 2013 included 174 patients. **Result:**The above mentioned data and results show a strong relationship between ACS and the mentioned risk factors. **Conclusion:** There is a strong relationship between risks factors themselves as D.M and hypertension, and between hypertension with the sex and smoking.There's an association between D.M and the patient's gender
Keywords: Angina; coronary syndrome; epidemiology.

Introduction

Acute coronary syndrome defined group of symptoms attributed to the obstruction of coronary arteries, The most common symptom prompting diagnosis of acute coronary symptom is chest pain.Acute coronary syndrome has three major categories; ST-elevation myocardial infarction, non-ST-elevation myocardial infarction, and unstable angina.Diabetes, Hypertension, smoking, age, and gender are the main known risk factors of ACS. Diagnosis of acute coronary syndrome depends on the history, electrocardiography, and bio-chemical markers,Two out of three is diagnostic, as well as, elevated biomarkers alone is diagnostic.Angina pectoris is a retro sternal chest pain, aggravated by excursion or emotional stress, and relieved by rest or nitrates.This description is typical chest pain, while two out of three criteria is atypical, if only one criterion so non-cardiac chest pain. Unstable angina is one of these angina New onset angina, Angina at rest, Angina increasing in its frequency, duration, and severity, postprandial angina, Angina post-M.I within two months, Angina not relieved by nitrates Otherwise its stable angina.So unstable angina diagnosed only by history.There's neither electrocardiographic changes nor bio-markers elevation,Non ST-segment elevation and ST-segment elevation myocardial infarction. Here, it's same history as any class of acute coronary syndrome, but with electrocardiographic changes (ST-segment, T-wave) inversion but not ST-segment elevation, biomarkers will elevate in this case. In the case of ST-segment elevation myocardial infarction, there will be ST-segment elevation.The aim of our survey to identify the relationship between ACS and its risk factors and the association between the risks factors themselves.

Material and Methods

A retrospective study depends on the registered files of the admitted patients to Prince Ali Bin Alhussein hospital with ACS since April 2013 till October of 2013 included 174 patients.

Results

Risk factors of acute coronary syndrome:
1-   Age and Gender:

The risk of developing coronary artery disease (CAD) increases with age.Especially above age 45 years in men and greater than 55 years in women.Out of 174 patients 110 (63%) were males, and 69 (37%) were females, with mean 1.37 toward male and SD0.48.About age the youngest patient is 17 years and the eldest one is 90 years, with mean age 52.2 and SD 16.1.

2-Diabetes mellitus:
Patients with diabetes are risky to experience future cardiovascular events than age-matched individuals without diabetes.HbA1c levels use as a predictive factor for CAD in diabetes in both men and women. 77 of the patients are diabetics. 2Which represent 44% of patient of those whom diabetics 44 are males (57%), and 33 are females (43% .54 patients of diabetics are hypertensive that represents 70%.figur1 and 2 Figure1.

Gender	youngest	eldest	Commonest age group	Total
male	17 years	83years	40-50 years	110
female	20 years	90 years	60-70 years	64

3-Smoking
Cessation of cigarette smoking constitutes the single most important preventive measure for CAD. As early as the 1950s, studies reported a strong association between cigarette smoke exposure and heart disease. Persons who consume more than 20 cigarettes daily have a 2- to 3-fold increase in total heart disease. Continued smoking is a major risk factor for recurrent heart attacks. Smoking is the major risk factor with 93 patients are smokers (85%).
68 patients are males (73%), and 25 patients (27%) are females.

Figure2.
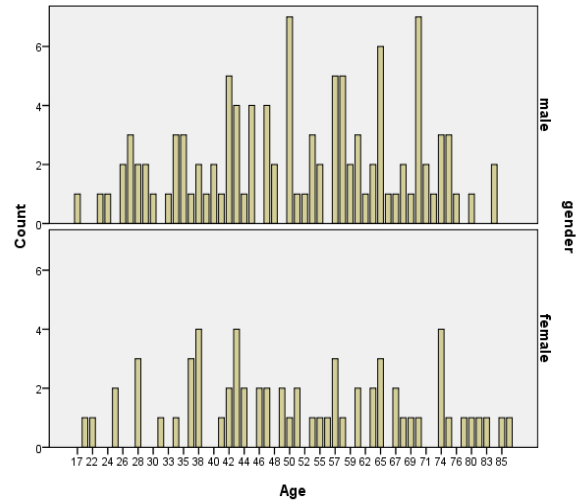
4-Hypertension:
High-normal blood pressure (defined as a systolic blood pressure of 130-139 mm Hg, diastolic blood pressure of 85-89 mm Hg, or both) increased the risk of cardiovascular disease 2-fold, as compared with healthy individuals. increases or decreases in blood pressure during middle age have associated higher and lower remaining lifetime risk for cardiovascular disease.This suggests that prevention efforts should continue to emphasize the importance of lowering blood pressure in order to avoid hypertension .Hypertension, along with other factors such as Diabetes, have been said to contribute to the development of left ventricular hypertrophy (LVH). LVH has been found to be an independent risk factor to cardiovascular disease morbidity and mortality. It roughly doubles the risk of cardiovascular death in both men and women.Hypertension as an independent risk factor counts 92 patients (53%).A 60 patients (65%) are males, and 32 patients (35%) are females. Of those 92 patients 49 patients are smokers (53%).

Conclusion
The above mentioned data and results show a srelassocshipiation between ACS and the mentioned risk factors.
There is a srelassocshipiation between risks factors themselves as D.M and hypertension, and between hypertension wits xgender and

smoking.There's an association between D.M and the patient's gender

RecommendatRight:
1.   Good patient and family history should be taking.
2.   Patient should be educated about the ACS risks factors and their association with Well,

3.   Good follow up plan should be arranged. Patient should be encouraged to feed back his physician with
4.   good follow up upon regular follow up visit.

5.   The need to establish an organized national program to combat smoking.

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