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College of Medicine

Department of Community and Family Medicine



**Risk Factors for Chronic Stable Angina and Acute Coronary
Syndrome among Patients Attending Kerbala Cardiac
Center, 2023.**

A thesis submitted to the Council of College of Medicine at the University of Kerbala in partial fulfillment of the requirements for higher diploma degree

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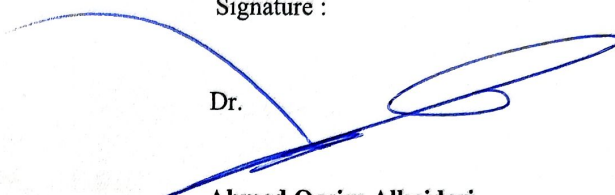
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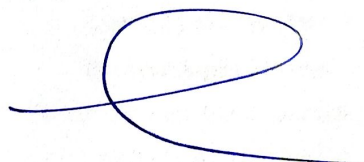
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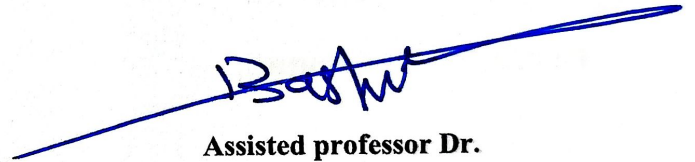
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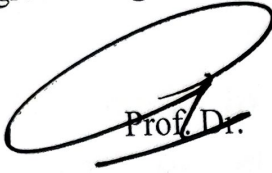
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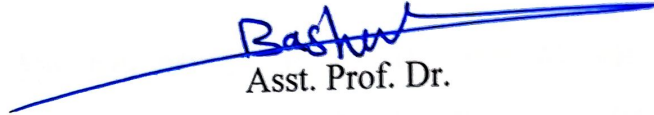
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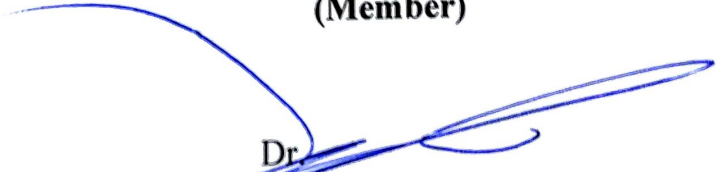
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Dedication

Gratitude and thanks to my husband for his continuous support to me during my scientific career. Thanks and dedicated appreciation to my older sister, without her I would not have reached this stage. And never forget gratitude to my deceased parents who have always left an impact on me with a love of science since childhood.

I made this project.

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List of Abbreviations

1. ACS: acute coronary syndrome
2. BMI: body mass index
3. CABG: coronary artery bypass graft
4. CAD: coronary artery disease
5. CHD: coronary heart disease
6. CSA: chronic stable angina
7. CVD: chronic vascular disease
8. DM: diabetes mellitus
9. ECG: electrocardiogram
10. HDL-C: high density lipoprotein- cholesterol
11. HF: heart failure
12. HTN: hypertension
13. IHD: ischemic heart disease
14. LDL: low density lipoprotein
15. LDL-C: low density lipoprotein- cholesterol
16. MI: myocardial infarction
17. PCI: percutaneous coronary intervention
18. TC: total cholesterol
19. TG: triglyceride
20. WHO: world health organizatio

Abstract

Background: Ischemic heart disease is a common cardiovascular disease that occurs when blood flow to the heart is reduced or blocked, leading to a lack of oxygen and nutrients to the heart muscle. It can lead to chest pain, shortness of breath, and potentially life-threatening conditions such as heart attack and heart failure. The two main types are chronic stable angina (CSA) and acute coronary syndrome (ACS).

Aim of the study: Evaluate the patients having chronic stable angina and acute coronary syndrome regarding the prevalence of risk factors, symptoms, co-morbidities and other factors that may contribute to these differences among the patient. **Methods:** A cross-sectional study was conducted at the Kerbala Cardiac Center in Iraq. Participants were randomly selected for the study conducted between January and June 2023. 160 patients diagnosed with IHD were enrolled (60 cases of CSA, 100 cases of ACS). **Results:** ACS was twice as common as CSA (62.5% vs 37.5%). There was no significant age difference between groups. More males (67%) than women (23%) were suffered from CSA. ACS patients showed significant dyslipidemia ($p=0.002$) with increased LDL levels and more frequent medical treatment. Social factors such as retirement and low physical activity were more prevalent among ACS patients. CSA was associated with the emergence of chest pain, while shortness of breath was predominant in ACS.

Conclusions: The levels of dyslipidemia, social factors, and symptom presentation varied significantly among the community groups. This result shows the need for individualized management strategies for such conditions.

CHAPTER ONE

Introduction

1.1 Introduction

Ischemic heart disease (IHD) is still the most common death and disability factor for both men and women and takes away millions of lives around the globe (Benjamin, E. et al 2017).

The ever-changing process of obstruction of a coronary artery or changes in the coronary circulation, commonly known as ischemic heart disease, can be altered through medication, revascularization, or lifestyle changes. It is possible that the disease would be arrested or even reversed by this type of treatment. Due to the emergence of a new language, ischemic heart disease clinical manifestations are now referred to as either acute coronary syndrome or chronic coronary syndrome (Jensen, R. V et al 2020).

Cardiovascular diseases (CVDs) are the leading cause of global morbidity and mortality. In 2019 CVDs accounted for an estimated 17.9 million mortalities worldwide, representing 32% of global deaths (WHO).

People living in low- and middle-income countries are more exposed to pre-mature deaths of CVD origin. Among CVDs, ischemic heart disease (IHD) is the most prevalent (Khan, M. A. et al 2020). Ischemic heart disease is a pathological process that is characterized by an imbalance between the demand and supply of myocardial oxygen as a consequence of the reduced cardiac blood flow.

Atherosclerotic blockage, microvascular dysfunction, coronary artery vasospasm, and congenital abnormalities are a few possible reasons. Since they are commonly used collectively, coronary artery disease (CAD) and ischemic heart disease (Dababneh, E., & Goldstein, S. 2019).

Therefore, it is believed that IHD or CAD is a multifactorial phenomenon that is influenced by both modifiable and non-modifiable risk factors, such as lipid profile, obesity, smoking, alcohol, low fruit and vegetable intake, physical inactivity, and other psychological aspects. Non-modifiable risk factors include genetics, gender, age, and family history.

The goal of current therapies is to lower the modifiable risk factors, particularly the advancement of atherosclerotic disease, either by employing traditional therapies or by providing patients with food and lifestyle advice (Chedea, V. S., et al. 2021).

1.2 ANATOMY OF CORONARY CIRCULATION:

Epicardial arteries, pre-arterioles, and arterioles make up the coronary vasculature, with the last two forming the coronary microvasculature. When there is no major stenosis in the epicardial arteries, they provide little resistance. The branches split into pre-arterioles, which are positioned on the epicardial surface and range in size from 100 to 500µm (Camici, P. G., & Crea, F. 2007).

Eventually, the pre-arterioles give rise to intramyocardial arterioles (100µm), which account for the majority of total coronary vascular resistance (Patel, B., & Fisher, M. 2010).

1.3 The clinical features:

Chest pain, shortness of breath, nausea, weakness, weariness, and jaw discomfort are all common symptoms of IHD in both men and women (Mieres, J. H et al 2011)

Class of presentation can be chronic stable angina and acute coronary syndrome.

1.4 The risks of ischemic heart disease

Diets and Ischemic Heart Disease:

Diets high in saturated fats and trans fats can contribute to the development of atherosclerosis. It is a major risk factor for IHD. There are proved benefits of the Mediterranean diet in reducing the risk of IHD, including its emphasis on olive oil, fruits, vegetables, nuts, and fish (Zeinalabedini, M., et al. (2024). Excessive salt intake on blood pressure and cardiovascular health. Additionally, role of added sugars in promoting obesity, diabetes, and other risk factors for IHD. For preventing IHD, limiting saturated fats, sodium, and added sugars (Rostami, R., et al. (2024).

Diabetes mellitus: Diabetes mellitus increases independent risk of IHD approximately 1.5 and 1.7 fold among males and females, respectively (Sakboonyarat, B., & Rangsin, R. 2018). There is a qualitative interaction between IHD and DM in the risk for progression to symptomatic HF.

DM was associated with an increased risk for development of HF only in those patients with IHD. The pathophysiologic basis for this interaction has not been established. However, alterations in cardiac structure and function attributable to DM have been reported (Das, S. R., et al. 2004).

Hypertension: One of the main risk factors for ischemic heart disease is hypertension. Controlling blood pressure appropriately is essential to preventing both primary and secondary ischemic heart disease.

Sustaining a blood pressure of 140/90 mmHg is recommended for primary prevention, whereas a blood pressure of 130/85 mmHg was previously advised for secondary prevention (Špínar, J. 2012). Generally speaking, hypertension greatly speeds up the development of atherosclerosis and doubles the risk of cardiovascular disease (Špínar, J. et al. 2003)

Obesity: Numerous risk factors and comorbidities, including metabolic syndrome, type 2 diabetes, hypertension, and cardiovascular illnesses, are linked to obesity (Barrios, V., et al 2010). Obesity in adults is becoming increasingly common worldwide, but it's much more worrying among adolescents. Even in the absence of other comorbidities, obese people have a range of adaptations/alterations in heart structure and function in addition to a worsening of their metabolic profile (Poirier, P et al 2006).

Therefore, obesity has direct and indirect risk for IHD.

Dyslipidemia: The term dyslipidemia refers to abnormal blood levels of lipoproteins and lipids. Triglycerides (TG), low-density lipoprotein cholesterol (LDL-C), total cholesterol (TC), and lowered high-density lipoprotein cholesterol (HDL-C) are the symptoms. It has been demonstrated to be an independent predictor of several cardiovascular and cerebrovascular events on an international basis.

As a result, there has been a recent activate to prevent and treat dyslipidemia as a major risk factor and to recognize its prognostic relevance in order to lower the incidence of MI and stroke (Kim, M. K et al 2017) (Olamoyegun, M. A., et al 2016).

Smoking: The World Health Organization estimates that tobacco use results in the deaths of about eight million people annually (Holt, E., et al. 2022).

50% of smokers preventable deaths are attributable to cigarette smoking, with atherosclerotic cardiovascular illnesses including heart attacks and stroke accounting for half of these deaths (Prasad, D. S., et al. 2009). It is often known that smoking has a negative impact on vascular disorders, including heart attacks and strokes (Bartlowe, H. M. 2019) .

Aging: The cardiovascular system's normal aging changes supposed to be separated from pathologies associated with aging, such as atherosclerosis, which in theory ought to be preventable. Age-related cardiac alterations include a gradual loss of cardiac myocytes, hypertrophy of the surviving cells, an increase in connective tissue buildup, and amyloid deposition in the extremely elderly (Lie, J. T., & Hammond, P. I. 1998)

While systolic function is often preserved, early diastolic function decreases with aging (Manning, W. J et al 1991), raising resting and exercise-induced left ventricular filling pressures and increasing the need for atrial contraction to sustain sufficient diastolic filling (Lipsitz, L. A. et al 1990).

Aging is associated with a significant decrease in cells in the sino-atrial node and an increase in fibrosis in the conduction system and inter-nodal tracts (Davies, M. J. 1976).

Elderly patients have four times higher rates of hospitalization for ischemic heart disease than patients 45-54 years old. With 85% of heart failure patients being older than 65, congestive heart failure is notably more common among the elderly (Gottdiener, J. S et al 2000).

Family history: individuals with a positive family history of CHD had a significantly higher risk of developing CHD themselves, even after adjusting for other risk factors such as age, smoking, and hypertension (Si, J. H., et al. 2018). A positive family history of premature CHD was associated with an increased risk of developing CHD, and incorporating this information into risk prediction models improved their accuracy (Sivapalaratnam, S., et al. 2010)

The treatment: The studies outlines the recommended line of treatment for ischemic heart disease, including the use of reperfusion therapy (such as primary percutaneous coronary intervention or thrombolysis), antiplatelet therapy, anticoagulant therapy, and secondary prevention strategies (ESC Task Force for the Management of Acute Myocardial Infarction in Patients Presenting with ST-Segment Elevation. 2018). Various lines of treatment, including lifestyle modifications (such as diet and exercise), management of cardiovascular risk factors (such as hypertension and dyslipidemia), and the use of pharmacological interventions when necessary (Arnett, D. K., et al. 2019).

The idea for this research arose due to the numerous cases of angina and heart diseases at the Karbala Heart Disease Center, which necessitate a comprehensive data analysis in hopes of contributing to the improvement of healthcare provided to these patients.

1.5 Aim of the study:

-To assess the prevalence of risk factors between patients with chronic stable angina and acute coronary syndrome.

-To study the difference in risk factors, clinical presentation and co morbidity between patients with chronic stable angina and acute coronary syndrome.

CHAPTER TWO

PATIENTS and METHODS

Methods:

2.1 Study design:

This study is a descriptive and a cross sectional study conducted in Karbala cardiac center- Iraq, Kerbala to compare between patients with chronic stable angina and ACS.

2.2 Study Population:

A sample of 160 patients accounted from January to June in 2023 in kerbala cardiac center. This center is receiving the majority of IHD cases in kerbala, and from others area in Iraq because it has the good capabilities for cardiac intervention.

2.3 Data collection tools:

A special questionnaire form was used for purpose of study, that was filled by the researcher selected after explaining the purpose of study. The questionnaire was modified from published study in Saudi Arabia (AlRahimi, J., et al. (2020). All risk factors, lab results of lipid profile, and physical activity according to METS (Metabolic Equivalent Task) system were enrolled in the questionnaire.

Regarding mental state: job stress severity can vary significantly depending on individual perceptions and coping mechanisms.

2.4 Selection Criteria:

Patients of both genders were included in this study who presented with clinical features and ECG findings of IHD attending cardiac care center of Kerbala including emergency and outpatient's department cases.

The types of IHD; ACS or CSA was labeled according to patients file record in the ward.

2.5 Inclusion Criteria:

Patients diagnosed with IHD (ACS, chronic stable angina).

2.6 Exclusion Criteria:

- Patients who were hemodynamically unstable, whose data cannot be collected.
- uncooperative patients.

-patients with incomplete data.

2.7 Ethical considerations:

After discussing the aims of the study and defining the sort of information requested of the interview, all patients involved in the study gave verbal informed permission. Throughout the data gathering, organization, analysis, and presentation process, all collected information was kept private. To safeguard the patients' privacy, their names were substituted with identifying numbers (file serial number).

An ethical approval will be obtained from Research Ethics Committee at College of Medicine – University of Kerbala. Further, a verbal consent will be taken from patients in Kerbala cardiac center with assuring anonymity and confidentiality of answers.

2.8 Statistical analysis:

The data of the current study were entered and analyzed using the Statistical Package for the Social sciences (SPSS 23.0 for Windows). The descriptive statistics were used in term of frequency and percentage and mean±SD in appropriate tables and graphs. Possible association between two groups was made through the Chi-square test or Independent-Samples t-test. Significance level was considered when p value equal or < 0.05.

CHAPTER THREE

RESULTS

Results:

The results of the present study included a total of 160 ischemic heart disease patients admitted to the cardiac Karbala Center in Karbala City, 2023. The study included 60 patients (37.5% of total) with chronic stable angina and 100 patients (62.5% of total) with acute coronary syndrome (figure-1). The results showed that there was no significant difference in mean age of the patients of the two groups of the study (chronic stable angina and acute coronary syndrome). Male sex was significantly higher in chronic stable angina (67.7%) than those of acute coronary syndrome (52%). The proportion of patients with *Family history of premature death* and *Family history of premature IHD* were significantly higher in chronic stable angina (65% and 70%) than that of acute coronary syndrome (47 and 48% respectively). Whereas, the proportion of patients with *Family history of premature DM* was significantly higher in patients with acute coronary syndrome (37%) than that of chronic stable angina (21.7%) as shown in table-2 below.

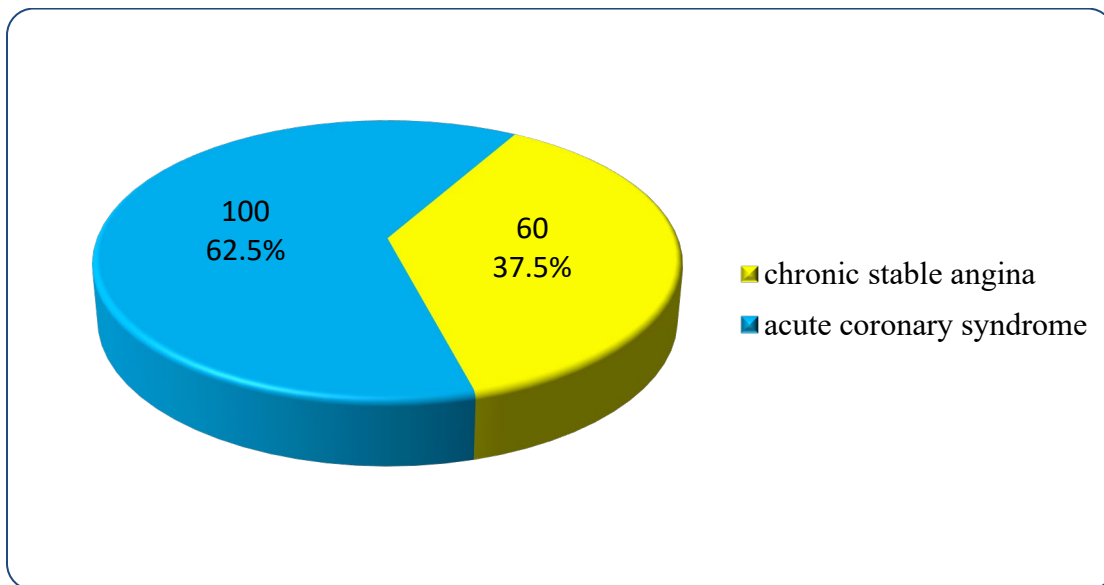


Figure-1. Types of ischemic heart disease of the study patients

Table-1: Social factors among patients of the two groups of the study.

Characteristics		Total	Chronic stable angina	Acute coronary syndrome	P value
Residence	Urban	112 (70)	45 (75)	67 (67)	0.285
	Rural	48 (30)	15 (25)	33 (33)	
Marital status	Single	8 (5)	2 (3.3)	6 (6)	0.072
	Married	102 (63.7)	45 (75)	57 (57)	
	Divorced/ widow	50 (31.3)	13 (21.7)	37 (37)	
Number of sibling	1-4	47 (29.4)	22 (36.7)	25 (25)	0.292
	> 4	95 (59.3)	32 (53.3)	63 (63)	
	Infertility/ unmarried	18 (11.3)	6 (10)	12 (12)	
History of infertility	No	150 (93.7)	56 (93.3)	94 (94)	0.866
	Yes	10 (6.3)	4 (6.7)	6 (6)	
Occupation	Employee	39 (24.4)	16 (26.7)	23 (23)	0.021*
	Free work	31 (19.4)	17 (28.3)	14 (14)	
	Retired	27 (16.9)	12 (20)	15 (15)	
	Not working	63 (39.3)	15 (25)	48 (48)	
Academic qualification	Neither	22 (13.8)	6 (10)	16 (16)	0.198
	Primary school	51 (13.9)	15 (25)	36 (36)	
	Secondary school	51 (13.9)	24 (40)	27 (27)	
	University	36 (22.4)	15 (25)	21 (21)	
Job stress degree	Simple freelance	143 (89.4)	50 (83.8)	93 (93)	0.044*
	Hard freelance	13 (8.1)	9 (15)	4 (4)	
	Mental stress	4 (2.5)	1 (1.7)	3 (3)	
Physical activity	Low	113 (70.6)	34 (56.7)	79 (79)	0.011*
	Moderate	41 (25.6)	23 (38.3)	18 (18)	
	High	6 (3.8)	3 (5)	3 (3)	
On 3 regular meals	No	67 (41.9)	25 (41.7)	42 (42)	0.967
	Yes	93 (58.1)	35 (58.3)	58 (58)	
Heavy fatty meals in a day	None	11 (6.9)	6 (10)	5 (5)	0.255
	Once	98 (61.2)	31 (51.7)	67 (67)	
	Twice	42 (26.3)	19 (31.7)	23 (23)	
	More than twice	9 (5.6)	4 (6.7)	5 (5)	
Type of oil used in cooking	Saturated oil	14 (8.8)	6 (10)	8 (8)	0.665
	Unsaturated oil	146 (91.2)	54 (90)	92 (92)	
Sweets	None	27 (16.9)	8 (13.3)	19 (19)	0.089
	Rarely	31 (19.4)	10 (16.7)	21 (21)	
	Sometimes	81 (50.6)	29 (48.3)	52 (52)	
	Always	21 (13.1)	13 (21.7)	8 (8)	
Soft drinks	None	65 (40.6)	18 (30)	47 (47)	0.161
	Rarely	23 (14.4)	11 (18.3)	12 (12)	
	Sometimes	54 (33.8)	22 (36.7)	32 (32)	
	Always	18 (11.3)	9 (15)	9 (9)	

Regarding the social factors of the study patients, the results showed that patients of acute coronary syndrome group had significantly higher proportion of occupation of retired and not working than that of chronic stable angina group ($p=0.021$). Also significant difference among the patients of the two groups in term of *job stress degree* in proportion of patients was concluded i.e. *Simple freelance* in acute coronary syndrome group had significantly higher proportion than those of chronic stable angina ($p=0.044$). Low physical activity level was significantly differed between the two groups of the study i.e. 79% of patients with acute coronary syndrome compared to 56.7% of patients with chronic stable angina as illustrated in table-6 below.

Table-2: Non modifiable risk factors among patients of the two groups of the study.

Characteristics		Total	Chronic stable angina	Acute coronary syndrome	P value
Age groups (years)	Below 40	10 (6.3)	7 (11.7)	3 (3)	0.077
	40-49	30 (18.8)	14 (23.3)	16 (16)	
	50-59	43 (26.9)	14 (23.3)	29 (29)	
	60-69	45 (28)	12 (20)	33 (33)	
	70 and above	32 (20)	13 (40.6)	19 (19)	
Age (years)	mean \pm SD	59.06 \pm 12.43	56.68 \pm 13.41	60.49 \pm 11.65	0.061
Sex	Male	98 (61.2)	46 (67.7)	52 (52)	0.002*
	Female	62 (38.8)	14 (23.3)	48 (48)	
Family history of premature death	No	74 (46.3)	21 (35)	53 (53)	0.027*
	Yes	86 (53.7)	39 (65)	47 (47)	
Family history of IHD	No	70 (43.8)	18 (30)	52 (52)	0.007*
	Yes	90 (56.2)	42 (70)	48 (48)	
Family history of HTN	No	86 (53.7)	32 (53.3)	54 (54)	0.935
	Yes	74 (46.3)	28 (46.7)	46 (46)	
Family history of DM	No	110 (68.7)	47 (78.3)	63 (63)	0.043*
	Yes	50 (31.3)	13 (21.7)	37 (37)	

*Chi-square test was used with a significant P value of less than 0.05.

The analysis of modifiable risk factors of the two groups of the study patients showed that there were no significant differences among patients of the two groups in relation to Weight status, smokers and non-smokers, whereas there was significant difference between *Former smoker* and *Current smoker* (p=0.031) as shown in table-2.

Table-3: Some modifiable risk factors among patients of the two groups of the study.

Characteristics		Total	Chronic stable angina	Acute coronary syndrome	P value
Weight status	Normal weight	38 (23.8)	14 (23.3)	24 (24)	0.255
	Overweight	79 (49.3)	34 (56.7)	45 (45)	
	Obese	43 (26.9)	12 (20)	31 (31)	
BMI	mean ±SD	27.74±4.32	27.08±3.48	28.14±4.73	0.135
Central obesity	No	99 (61.9)	40 (66.7)	59 (59)	0.334
	Yes	61 (38.1)	20 (33.3)	41 (41)	
Smoking	No	69 (43.1)	20 (33.3)	49 (49)	0.053
	Yes	91 (56.9)	40 (66.7)	51 (51)	
Type of smokers	Former smoker	34 (37.4)	10 (25)	24 (47.1)	0.031*
	Current smoker	57 (62.6)	30 (75)	27 (52.9)	
Duration of smoking (years)	mean ±SD	29.6±11.8	29.8±12.5	29.5±11.4	0.911

*Former smokers who stop for 6months or more.

Regarding the history of hypertension and diabetes mellitus, the analysis of the data revealed that there were no significant differences among patients of the two groups in relation to History of hypertension and diabetes, follow up of hypertension and diabetes, medical treatment of hypertension and diabetes, type of diabetes and duration of hypertension and diabetes as illustrated in table-4 and table-5 below.

Table-4: Some modifiable risk factors among patients of the two groups of the study.

Characteristics		Total	Chronic stable angina	Acute coronary syndrome	P value
HYPERTENSION (HTN)	No	65 (40.6)	20 (33.3)	45 (45)	0.146
	Yes	95 (59.4)	40 (66.7)	55 (55)	
On medical treatment of HTN	No	86 (53.7)	31 (51.7)	55 (55)	0.682
	Yes	74 (46.3)	29 (48.3)	45 (45)	
	Yes	15 (9.4)	5 (8.3)	10 (10)	
Duration of HTN (years)	Negative	65 (40.6)	20 (33.3)	45 (45)	0.053
	0-5	37 (23.1)	21 (35)	16 (16)	
	6-10	40 (25)	13 (21.7)	27 (27)	
	>10	18 (11.3)	6 (10)	12 (12)	

Table-5: Some modifiable risk factors among patients of the two groups of the study.

Characteristics		Total	Chronic stable angina	Acute coronary syndrome	P value
DIABETEC MELLITUS (DM)	No	105 (65.6)	41 (68.3)	64 (64)	0.576
	Yes	55 (34.4)	19 (31.7)	36 (36)	
Type of DM	Negative	105 (65.6)	41 (68.3)	64 (64)	0.805
	Type1	7 (4.4)	2 (3.3)	5 (5)	
	Type2	48 (30)	17 (28.3)	31 (31)	
Duration of DM / years	Negative	105 (65.6)	41 (68.3)	64 (64)	0.648
	0-5	16 (10)	7 (11.7)	9 (9)	
	6-10	16 (10)	6 (10)	10 (10)	
	>10	23 (14.4)	6 (10)	17 (17)	
On medical treatment of DM	No	109 (68.1)	43 (71.7)	66 (66)	0.456
	Yes	51 (31.9)	17 (28.3)	34 (34)	
On insulin	No	129 (80.6)	51 (85)	78 (78)	0.278
	Yes	31 (19.4)	9 (15)	22 (22)	
	Yes	5 (3.1)	2 (3.3)	3 (3)	

*Chi-square test was used with a significant P value of less than 0.05.

Regarding the assessment of dyslipidemia among the two groups of the study patients, acute coronary syndrome patients had significantly higher proportion of high LDL and high LDL than that of chronic stable angina group ($p=0.002$). Also acute coronary syndrome group reported significantly higher proportion of patients on medical treatment of dyslipidemia than those of chronic stable angina ($p=0.004$) as shown in table-5 below. The results concluded that history of IHD medication was significantly higher in patients with acute coronary syndrome than those with chronic stable angina ($p=0.019$) as shown in figure-2.

Table-6: Some modifiable risk factors among patients of the two groups of the study.

Characteristics		Total	Chronic stable angina	Acute coronary syndrome	P value
High LDL	No	119 (74.4)	53 (88.3)	66 (66)	0.002*
	Yes	41 (25.6)	7 (11.7)	34 (34)	
High TG	No	149 (93.1)	55 (91.7)	94 (94)	0.748
	Yes	11 (6.9)	5 (8.3)	6 (6)	
Dyslipidemia	No	104 (65)	48 (80)	56 (56)	0.002*
	Yes	56 (35)	12 (20)	44 (44)	
On medical treatment of dyslipidemia	No	112 (70)	50 (83.3)	62 (62)	0.004*
	Yes	48 (30)	10 (16.7)	38 (38)	

*Chi-square test was used with a significant P value of less than 0.05.

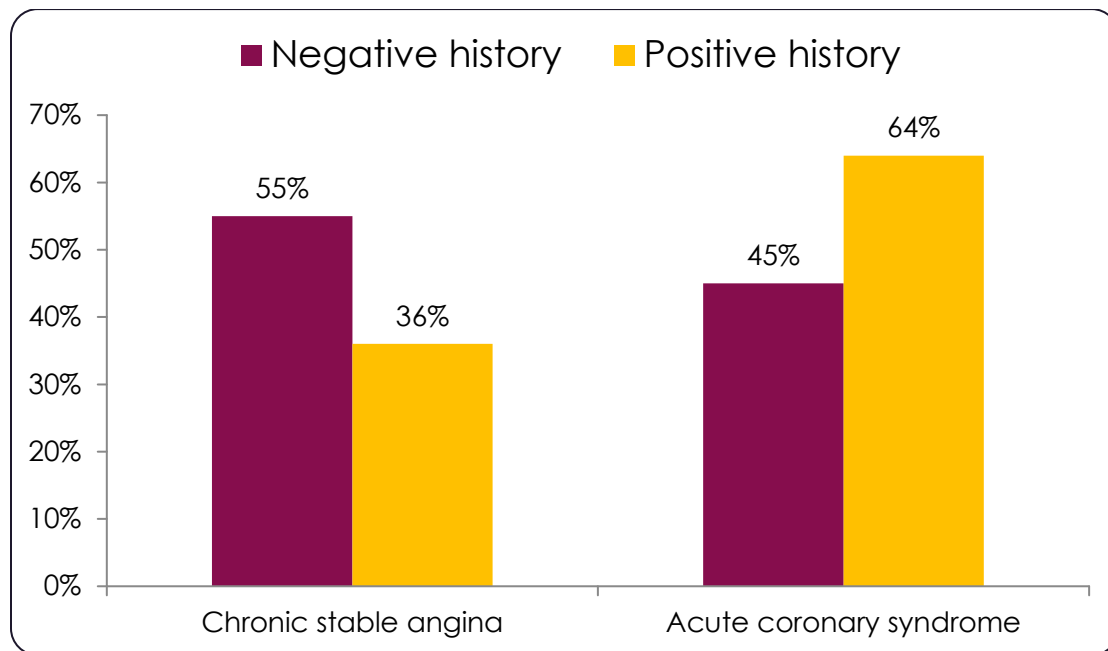


Figure-2: Comparison of history of IHD medication among patients of the two groups of the study.

Regarding comorbidities, the results of the current study revealed no significant difference between the two groups in relation to history of chronic kidney disease, history of heart failure and other comorbidities shown in table-7 below.

Table-7: comorbidities among patients of the two groups of the study.

Characteristics		Total	Chronic stable angina	Acute coronary syndrome	P value
History of chronic kidney disease	No	145 (90.6)	55 (91.7)	90 (90)	0.726
	Yes	15 (9.4)	5 (8.3)	10 (10)	
History of heart failure	No	150 (93.7)	57 (95)	93 (93)	0.613
	Yes	10 (6.3)	3 (5)	7 (7)	
History of psychiatric illness	No	152 (95)	57 (95)	95 (95)	1
	Yes	8 (5)	3 (5)	5 (5)	
History of malignancy	No	157 (98.1)	58 (96.7)	99 (99)	0.557
	Yes	3 (1.9)	2 (3.3)	1 (1)	
History of chronic vascular accident	No	156 (97.5)	59 (98.3)	97 (97)	0.601
	Yes	4 (2.5)	1 (1.7)	3 (3)	

* Other comorbidities included: asthma, bladder CA, COPD, Crohn's disease, endometrial CA, fatty liver disease, glaucoma, hypothyroidism, liver cirrhosis and migraine, pancreatic CA, PCOS, PVD, RA, rheumatic heart disease, SLE, TIA and ulcerative colitis.

In term of cardiovascular factors, the study revealed that diagnostic PCI among patients with acute coronary syndrome had significantly higher proportion (86.8%) than those of chronic stable angina (35.8%). Regarding symptoms of cardiovascular diseases, chest pain reported by 46.7% of patients with chronic stable angina compared to one quarter of patients with acute coronary syndrome, whereas shortness of breath reported by only 6.7% of patients with chronic stable angina compared to 21% of patients with acute coronary syndrome as shown in table-8 below.

Table-8: Cardiovascular factors among patients of the two groups of the study.

Characteristics		Total	Chronic stable angina	Acute coronary syndrome	P value
History of previous PCI	No	79 (49.4)	32 (53.3)	47 (47)	0.438
	Yes	81 (50.6)	28 (46.7)	53 (53)	
Type of PCI	Diagnostic	56 (69.2)	10 (35.8)	46 (86.8)	<0.001*
	Therapeutic	12 (14.8)	9 (32.1)	3 (5.7)	
	Diagnostic & therapeutic	13 (16)	9 (32.1)	4 (7.5)	
Previous CABG	No	155 (96.9)	59 (98.3)	96 (96)	0.651
	Yes	5 (3.1)	1 (1.7)	4 (4)	
Symptoms	Chest pain	53 (33.1)	28 (46.7)	25 (25)	0.006*
	Palpitation	8 (5)	1 (1.7)	7 (7)	
	SOB	25 (15.6)	4 (6.7)	21 (21)	
	More than one symptoms	74 (46.3)	27 (45)	47 (47)	

*Chi-square test was used with a significant P value of less than 0.05.

CHAPTER FOUR

DISCUSSION

Discussion:

Based on the results of the present study, which included 160 ischemic heart disease patients admitted to the cardiac Karbala Center in Karbala City in 2023, we can draw several key findings.

The study consisted of two groups: 60 patients (37.5% of the total) with chronic stable angina and 100 patients (62.5% of the total) with acute coronary syndrome (ACS). This distribution highlights the higher prevalence of ACS compared to chronic stable angina in the study population and this might be due to the major of data was collected in a place specialized in acute settings of the patients.

The mean age of the patients in CSA (56.68) and ACS (60.49) groups did not show a significant difference. This suggests that age might not be a differentiating factor between chronic stable angina and ACS in terms of the patients' baseline characteristics, the age has trend to be high in ACS patients.

While, when examining the distribution of gender, the results revealed a significant difference. The proportion of male patients was higher in the chronic stable angina group (67.7%) compared to the ACS group (52%). This finding suggests a potential gender-based difference in the manifestation or risk factors between the two conditions. This has agreement with (Sharma, S. P., et al. 2022). This may be due to atypical chest pain reported more in females as previous study approved. However, this has contradicted with (*Sanchis-Gomar, F., et al. 2016*), may be due to focusing of that study on ACS patients.

Furthermore, the study investigated the presence of family history as a potential risk factor. It was observed that the proportion of patients with family history of premature death and family history of premature ischemic heart disease (IHD) was significantly higher in the chronic stable angina group (65% and 70%, respectively) compared to the ACS group (47% and 48%, respectively). This implies that positive family history of premature death or IHD may be more strongly associated with chronic stable angina. Actually, this interested finding contradicts many studies published, particularly (Salari, N., et al. 2023), up to our best explanation is those studies did not focus on this finding in comparison manner. We try our best to avoid bias in collection of data. These differences may provide insights into the etiology, risk factors, or pathophysiological mechanisms underlying these two manifestations of ischemic heart disease.

The present study also analyzed modifiable risk factors among the two groups of patients: chronic stable angina and ACS. The results revealed some interesting findings.

When examining weight status, the mean of BMI; (27.74), revealed trend of overweight in overall patients, the study found no significant differences between the two groups. This suggests that weight status may not be a differentiating factor between chronic stable angina and ACS in this particular population.

Despite the smoking status in overall patients was high (56.9%) with agreement of (Mansour, K. 2014) but there were no significant differences between the two groups in terms of the proportion of smokers and non-smokers. This finding implies that smoking status alone may not be a distinguishing factor between chronic stable angina and ACS in these patients.

An important finding emerged when comparing former and current smokers. The analysis showed a significant difference between these two subgroups ($p=0.031$). This indicates that current smokers more prevalent in angina than in ACS which has consisted with (Buchanan, D. M., et al. 2015). In other hand, former smokers have higher prevalence in ACS patients than in chronic angina groups which has agreement with (Song, C., et al. 2019), this may be due to the duration and intensity of smoking before quitting make it the more risk of developing ACS even after cessation.

Regarding history of hypertension and diabetes in the study population, the results show that there wasn't any statistical difference between the two groups concerning the history of hypertension and diabetes. Consequently, the incidence of patients with chronic stable angina and those with acute coronary syndrome did not vary greatly from one another. This happen as a result of both conditions contribute to both types of IHD in same degree.

There is no significant variations in the type of diabetes, and hypertension and diabetes duration between the two groups.

It is worth noting that these findings are only for the study population and could be different in other populations and settings. Additionally, the study design and sample size might affect the statistical power to see the significant differences. More research in larger population with a more diverse group is preferred to confirm this result and investigate possible links between hypertension, diabetes and ischemic heart disease.

Regarding dyslipidemia assessment comprising of high LDL and high total cholesterol, the results show that a patient with acute coronary syndrome had a much larger percentage of high LDL and high total cholesterol compared to stable angina group ($p=0.002$). This finding, which has agreement with (Abera, A., et al. 2024) and (Muneeb, M., et al. 2022)⁴¹, suggesting that dyslipidemia, particularly elevated LDL and total cholesterol levels, may be more prevalent in patients with acute coronary syndrome.

The study also discovered that the acute coronary syndrome group had significantly more patients on medical therapy for dyslipidemia than the chronic stable angina group ($p=0.004$). The findings suggest that patients with acute coronary syndrome were more likely to receive medical intervention, such as lipid lowering therapy, to handle their dyslipidemia.

Presents the contrast between IHD medication history of the two groups in terms of IHD (see graph). The research findings show that the proportion of patients with history of IHD medication was notably higher in the acute coronary syndrome group as compared to the chronic stable angina group ($p=0.019$). This conclusion implies that there is an increased possibility that the patients in the acute coronary syndrome group had anterior history of medication treatment of ischemic heart disease.

Regarding the social factors assessed, including occupation, and physical activity level, the results indicate the following significant differences between the two groups:

Regarding occupation, the acute coronary syndrome group had a significantly higher proportion of patients who were retired or not working compared to the chronic stable angina group ($p=0.021$), while proportion of patients with a low physical activity level was significantly different between the two groups. The acute coronary syndrome group had a higher percentage (79%) of patients with low physical activity compared to the chronic stable angina group (56.7%). This suggests that patients with acute coronary syndrome were more likely to be in a non-working or retired status, potentially because of sedentary lifestyle and lack of regular physical activity is a known risk factor for ACS, stress and mental health more in non-working group and not working may result in limited access to healthcare services, including preventive screenings and regular medical check-ups. Delayed or inadequate medical care can increase the risk of undiagnosed or poorly managed risk factors for ACS.

Additionally, chronic angina group has trend to be employee or still working, this has consisted with (Estrella, M. L., et al. 2018). This may be due to high levels of stress in the workplace that can contribute to the development of angina, unhealthy eating habits and busy work schedules and limited access to healthy food options which can lead to poor dietary choices, such as consuming high-fat, high-sodium, and processed foods, many jobs require long hours of sitting or minimal physical activity, which can contribute to a sedentary lifestyle. Lack of regular exercise and physical activity is a risk factor for angina and other cardiovascular diseases and finally shift work and jobs that involve rotating or night shifts can disrupt the body's natural sleep-wake cycle and lead to irregular sleep patterns. This disruption in circadian rhythm can increase the risk of cardiovascular diseases, including angina.

Regarding comorbidities assessed in the study, including chronic kidney disease, heart failure, and other comorbidities, the results indicate that there were no significant differences between the chronic stable angina and acute coronary syndrome groups in terms of the history of chronic kidney disease, history of heart failure, or other comorbidities.

However, it is important to note that the absence of significant differences does not necessarily mean that these comorbidities are irrelevant or unrelated to ischemic heart disease. Other factors and considerations, such as sample size, population characteristics, and the specific definitions used for comorbidities, may have influenced the results.

Regarding cardiovascular factors, specifically diagnostic percutaneous coronary intervention (PCI) and symptoms reported by the study patients. The proportion of patients who underwent diagnostic PCI was significantly higher in the acute coronary syndrome group (86.8%) compared to the chronic stable angina group (35.8%). This finding suggests that patients with acute coronary syndrome were more likely to undergo diagnostic PCI, and this is due to good facility of center where data collected.

Regarding shortness of breath, only 6.7% of patients with chronic stable angina reported shortness of breath, whereas 21% of patients with acute coronary syndrome reported this symptom. This suggests that shortness of breath was more frequently reported by patients with acute coronary syndrome, possibly indicating a higher degree of cardiac compromise or greater disease severity. Furthermore, palpitations were more in ACS group which has agreement with (DeVon, H. A., et

al. 2008). It is important to note that symptoms can vary based on the location and severity of the blockage, as well as individual factors like age, sex, and medical conditions.

Also gender differences)), women with ACS often experience symptoms that differ from the classic chest pain commonly associated with angina or heart attacks

The analysis of cardiovascular factors revealed a significantly higher proportion of patients undergoing diagnostic PCI in the acute coronary syndrome group compared to the chronic stable angina group. Besides, the reported symptoms were different too, with chest pain being more frequently experienced by chronic stable angina patients and shortness of breath being more often reported by the acute coronary syndrome patients.

5.2 Study limitations:

Generally, there are limitations to consider. The sample size and specific characteristics of the study population might limit the generalizability of the findings. Additionally, the study's cross-sectional design may restrict our ability to establish causality or provide a comprehensive understanding of the relationship between modifiable risk factors and the development of ischemic heart disease. This provides new insight into the characteristic clinical features that may help differentiate these two presentations of coronary artery disease. Therefore, future studies with larger and more diverse populations are needed to confirm and extend these findings.

CHAPTER FIVE

CONCLUSSIONS & RECOMMENDATIONS

5.1 Conclusions:

1. Chronic stable angina patients had higher family history of premature death and premature ischemic heart disease.
2. There were no significant differences in weight status and smoking status but current smoking was more predominant in chronic stable angina patients.
3. ACS patients had higher LDL and total cholesterol levels and were more likely to receive medical treatment for dyslipidemia.
4. ACS patients were more likely to be retired or not working and have low physical activity levels.

5.2 Recommendations:

- 1- Provide targeted education and training to healthcare professionals to recognize the possibility of atypical symptoms in patients with ACS.
- 2- Implement risk assessment tools to identify individuals at high risk of developing ischemic heart disease.
- 3- Develop and implement community awareness programs to educate individuals about the risk factors, symptoms, and prevention strategies for ischemic heart disease.
- 4- Provide training programs for community members, including first responders, on recognizing the signs of a heart attack and administering basic life support.
- 5- Advocate for policies that promote heart-healthy environments in the community, such as smoke-free zones, access to healthy foods, and opportunities for physical activity.

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APPENDICES

Questionnaire on lifestyle, risk factors and clinical features of ischemic heart disease among Patients admitted in cardiac Karbala center in Karbala City, 2023

This research will help us understand the specific informational needs of patients with IHD and will be useful for recommending appropriate interventions to improve the lives of patients in the future. Your name will not be written in this form. We greatly appreciate your help in responding to this questionnaire

No :

I – Risk Factors :

(Non modifiable risk factors) :

1- Age

2- Sex

3- Family history : PREMATURE Family 1st degree IHD premature sudden death
Hypertention Diabetic melietus others

(Modifiable risk factors) :

4-Obesity : yes NO (BY Measurment of BMI)

5_central obesity : yes No (by measurment Waist circumference)

7-Smoking :Never smoker current smoker cigratte /day
duration of smoking

FORMER SMOKER QUIT IT BEFORE : 0-6 months 6-12 months
12m_5 y 5y_10y >10 years

8-Alcohol : yes No previously *

9- HTN: yes No

duration : 0_5years 6_10y 11_15 16_20

more than 20 y

neglected , controlled , uncontrolled ,

On MED : yes No , ACE , ARB

,Ca-channel blocker

Beta-blocker , Alpha -blocker

10- DM : yes No Type 1 Type 2

duration: 0_5years 6_10y 11_15 16_20

more than 20 y

neglected controlled uncontrolled

On MED : YES NO , Insulin , Sulfonylurea ,
Biguanide

AGI , Glinide , Thiazolidiendione .

11_Dyslipidemia: NO YES High LDL cholesterol % , High
triglyceride

Low HDL , ON treatment : YES NO

Neglegted controlled uncontrolled

12 - On IHD MEDS : yes No

(Social Factors) :

13- Residence: urban rural

14- -Marital status : Single married divorced
widower/widow

The number of your siblings : 1- 4 More than 4

History of infertility : yes no

15_ Occupation : government employee Retired
Not working Second job

Free works

16- Economic: good average poor

17-Education : neither primary secondary
Unversity

18-physical activity : Low Moderate High

19-Diet : DO u have eat 3 regular meals : yes NO

-Heavy fatty meals in aday : None Once Twice
More than 2

-The type of oil used for cooking : Saturated oils Unsaturated
oils

- **sweets** : None rarely Sometimes
always

-**soft drinks** :None rarely some times
always

(co_comorbidities)

20- CKD **COPD** **HF** **PSYCHIATRIC ILLNESS**
Malignancy **CAD** **PVD** **CVA** **RA**
OA **OTHERS**

(Cardiovascular factors)

21-Previous PCI: NO YES Diagnostic
Therapeutic

22-Previous CABG: NO YES

23-Symptoms : chest pain palpitation SOB
Others

History of emergency department admission : yes NO

24-Type : ACS stable angina

_ We have concluded our interview, do u have any comment or addition, Thank you for your patience and cooperation.



جامعة كربلاء
كلية الطب
قرع طب الأسرة
و المجتمع

إلى / الاستاذة الدكتورة علي موسى مهدي الموسوي المحترم

م/ تقييم استبانة

تحية طيبة

نظرا للمكانة العلمية والخبرة التي تتمتعون بها نرفق لكم استبانة مقترحة لرسالة طالب
الدبلوم العالي في طب الأسرة (فرح رحمان سليمان) المبين عنوانها في ادناه، راجين من جنابكم
الاطلاع عليها واعطاء ملاحظاتكم القيمة بشأنها ... مع فائق التقدير

**Risk Factors for Chronic Stable Angina and Acute Coronary Syndrome among
Patients Attending Karbala Cardiac Center, 2023**

أ.م.د. علي عيد الرضا أبو طحين
استشاري طب الأسرة
2023 / 4 / 19

عنوان الرسالة :

Title of the study:

**Risk Factors for Chronic Stable Angina and Acute Coronary Syndrome
among Patients Attending Karbala Cardiac Center, 2023**

Aim of the study:

- 1- To study the difference in clinical presentation, co morbidity and risk factors between patients with chronic stable angina and acute coronary syndrome.
- 2- To study the difference in angiographic results between chronic stable angina and acute coronary syndrome.

الملاحظات:

1. **Family history:** (Others need to be clarified)
2. **Family history HTN:** need to mention number of family members with HTN and better to have details Father, Mother, Brother/s, sister/s, Son/s, daughter/s, ~~Cusion/s~~
3. **Education:** neither? (need to be clarified according to Iraqi system or number of years of education)
4. **Occupation:** government employee Retired Not working hard freelance
Simple freelance (need to be clarified. more option separating sedentary occupation from non- sedentary)
5. **Economic:** good (Others need to be clarified better to put numbers 250 000 ID, 500 000ID....)
6. **Kind of food do u eat in abundance** (need to be clarified what is meant by abundance)
7. **Dyslipidemia:** (very important risk factor need to be clarified with more questions)
8. **Diet:** (need to be clarified with more questions)

اسم الخبير : علي موسى مهدي الموسوي

اللقب العلمي : أستاذ

مكان العمل : فرع طب الاسرة والمجتمع - كلية الطب - جامعة كربلاء

عدد سنوات الخبرة : 44 سنة




التوقيع :

تعهد سلامة فكرية

اني أ.د. رياض مصطفى مرتضى صالح المكلف بتقييم الأطروحة / الرسالة الموسومة Risk Factors for Chronic Stable Angina and Acute Coronary Syndrome among Patients Attending Kerbala Cardiac Center, 2023 شهادة دبلوم_عال في فرع طب الأسرة والمجتمع / الطب / جامعة كربلاء.

اتعهد بمراعاة الدقة في التقييم وعدم الاكتفاء ببحث الاطار العام للاطروحة او الرسالة ومنهج البحث العلمي والإضافات المعرفية او الإبتكار فضلاً عن تدقيق موضوعية الطرح التربوي والثقافي وبما لا يلامس الوحدة الوطنية وتعزيز الأمن المنهجي والعمل على كل ما جاء في الإطار اعلاه و بخلاف ذلك اتحمل كافة التبعات القانونية ولاجله وقعت.



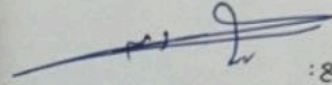
التوقيع: 
الاسم: أ.د. رياض مصطفى مرتضى صالح
التاريخ: 2024 / 7 / 1

ختم قانونية كلية جهة انتساب الخبير العلمي

تعهد سلامة فكرية

انيّ أ.د. سلام جاسم محمد عبد الله الفتلاوي المكلف بتقييم الأطروحة / الرسالة الموسومة Risk Factors for Chronic Stable Angina and Acute Coronary Syndrome among Patients Attending Kerbala Cardiac Center, 2023 على شهادة دبلوم_عال في فرع طب الأسرة والمجتمع / الطب / جامعة كربلاء.

اتعهد بمراعاة الدقة في التقييم وعدم الاكتفاء ببحث الإطار العام للأطروحة أو الرسالة ومنهج البحث العلمي والإضافات المعرفية أو الإبتكار فضلاً عن تدقيق موضوعية الطرح التربوي والثقافي وبما لا يلامس الوحدة الوطنية وتعزيز الأمن المنهجي والعمل على كل ما جاء في الإطار اعلاه و بخلاف ذلك اتحمل كافة التبعات القانونية ولأجله وقعت.

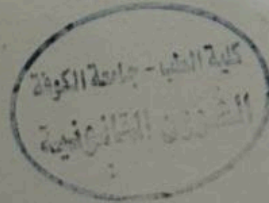


التوقيع :

الاسم : أ.د. سلام جاسم محمد عبد الله الفتلاوي

التاريخ : ٢٠٢٤ / ٧ / ٢

ختم قانونية كلية جهة انتساب الخبير العلمي



جمهورية العراق



وزارة التعليم العالي والبحث العلمي
جامعة كربلاء
كلية الطب
معاون العميد لشؤون العلمية
شعبة شؤون الدراسات العليا

العدد: 4629/610

التاريخ: 2024/ 8 / 12



أمر اداري

استناداً الى ما جاء في محضر مجلس الكلية الرابعة عشر المنعقدة بتاريخ 2024/7/15 والمصادقة عليها من قبل رئاسة جامعة كربلاء /امانة مجلس الجامعة بكتابهم المرقم (ج/1296 في 2024/7/23)، واستناداً للصلاحيات المخولة لنا نقرر:
تشكيل لجنة مناقشة علمية لرسالة طالبة الدبلوم العالي (سنتان تقويميتان) طب اسرة (فرح رحمان سليمان غلام) والموسومة:

Risk Factors for Chronic Stable Angina and Acute Coronary Syndrome among Patients Attending Karbala Cardiac Center, 2023

من الذوات المدرجة اسماؤهم في ادناه: -

ت	الاسم الثلاثي	اللقب العلمي	الشهادة	التخصص الدقيق	مكان العمل	المنصب في اللجنة
1	د.حسن راجي جلاب	أستاذ	بوردي	طب الاسرة	جامعة القادسية - كلية الطب	رئيساً
2	د.حسن علي عيود نصر الله	أستاذ	بوردي	الطب الباطني	جامعة العميد - كلية الطب	عضواً
3	د.بشير عقيل مسلم العلي	أستاذ مساعد	بوردي	طب المجتمع	جامعة كربلاء - كلية الطب	عضواً
4	د.علي عبد الرضا كاظم أبو طحين	أستاذ	بوردي	طب الاسرة	جامعة كربلاء - كلية الطب	مشرفاً وعضواً
5	د.احمد قاسم جعفر	طبيب استشاري	بوردي	باطنية وقلبية	دائرة صحة كربلاء المقدسة	مشرفاً وعضواً

- 2- علماً أن الرسالة قومت لغوياً من قبل (أ.م.د. توفيق مجيد احمد / جامعة كربلاء/كلية التربية للعلوم الإنسانية).
- 3- علماً أن الرسالة قومت علمياً من قبل (أ.د. رياض مصطفى مرتضى صالح/جامعة كربلاء/كلية الطب / و(أ.د. سلام جاسم محمد عبد الله الفتلاوي/ جامعة الكوفة/كلية الطب)
- 4- يكون موعد المناقشة يوم الخميس الموافق (2024/9/5) في تمام الساعة التاسعة صباحاً وعلى قاعة فرع طب الاسرة والمجتمع في كليتنا.
- 5- صرف مبلغ 75,000 دينار عراقي لا غير لكل من رئيس لجنة المناقشة والاعضاء المناقشين من خارج الجامعة.
- 6- صرف مبلغ 90,000 دينار عراقي لا غير بواقع (75,000+ 15,000) الى كل عضواً ومشرفاً في لجنة المناقشة من خارج الجامعة.

*نسخة منه:

- وزارة التعليم العالي والبحث العلمي /جهاز الاشراف والتقويم العلمي...للتفضل بالاطلاع...مع التقدير.
- وزارة التعليم العالي والبحث العلمي /وحدة الاعلام والعلاقات الثقافية...للتفضل بالاطلاع...مع التقدير.
- رئاسة جامعة كربلاء /قسم الاعلام والعلاقات الثقافية...للتفضل بالاطلاع...مع التقدير.
- رئاسة جامعة كربلاء/قسم الدراسات العليا...للتفضل بالاطلاع...مع التقدير.
- جامعة القادسية - كلية الطب فيما يتعلق بـ (أ.د. حسن راجي جلاب) مع التقدير.
- جامعة العميد - كلية الطب فيما يتعلق بـ (أ.د. حسن علي عيود نصر الله) مع التقدير.
- جامعة كربلاء - كلية الطب فيما يتعلق بـ (أ.م.د. بشير عقيل مسلم العلي) مع التقدير.
- مكتب السيد العميد المحترم...للتفضل بالاطلاع...مع التقدير.
- مكتب معاون العميد للشؤون العلمية المحترم...للتفضل بالاطلاع...مع التقدير.
- الفروع العلمية كافة...للتفضل بالاطلاع...مع التقدير.
- الحسابات...للتفضل بالاطلاع...واتخاذ ما يلزم فيا يخص لجنة المناقشة اعلاه مع التقدير.
- اضيابة الطالب والتدريسين
- شعبة الاعلام
- الصادرة.

أ.د. علي عبد الرضا كاظم أبو طحين

معاون العميد للشؤون العلمية

2024/8/11

ملخص:

الخلفية:

تعتبر أمراض القلب الإسكيميّة من الأمراض القلبية الشائعة التي تحدث عندما ينخفض تدفق الدم إلى القلب أو يتوقّف تماماً، مما يؤدي إلى نقص في الأكسجين والمواد الغذائية لعضلة القلب. وهي يمكن أن تسبّب آلاماً في الصدر وضيقاً في التنفس، وحالاتٍ قد تكون مهدّدة للحياة مثل النوبة القلبية والفشل القلبي. وتشمل هذه الأمراض نوعين رئيسيين وهما الذبحة الصدرية المستقرة المزمنة ومتلازمة الشريان التاجي الحاد..

هدف الدراسة:

تقييم المرضى الذين يعانون من الذبحة الصدرية المستقرة المزمنة ومتلازمة الشريان التاجي الحاد بالنسبة لانتشار عوامل الخطر والأعراض والأمراض المشتركة وعوامل أخرى قد تسهم في هذه الفروق بين المرضى..

الطرق:

تمّ إجراء دراسة مقطعية في مركز القلب في كربلاء بالعراق. تمّ اختيار المشاركين بطريقة مريحة للدراسة التي جرت بين يناير ويونيو 2023. وشملت الدراسة 160 مريضاً تم تشخيصهم بأمراض القلب الإسكيميّة (60 حالة من الذبحة الصدرية المستقرة المزمنة، و100 حالة من متلازمة الشريان التاجي الحاد).

النتائج:

كانت متلازمة الشريان التاجي الحاد شائعة بمعدّل ضعف متلازمة الذبحة الصدرية المستقرة المزمنة (62.5%) مقابل (37.5%). ولم يكن هناك فرق عمري ملحوظ بين الفئتين. وكانت نسبة الذكور أعلى (67%) من الإناث (23%) بين مرضى الذبحة الصدرية المستقرة المزمنة. كما أظهر مرضى متلازمة الشريان التاجي الحاد اضطرابات في نسبة الدهون، خصوصاً الدهون الضارة. ($p=0.002$)

كانت العوامل الاجتماعية مثل التقاعد والنشاط البدني المنخفض أكثر انتشاراً بين مرضى متلازمة الشريان التاجي الحاد. وكانت الذبحة الصدرية المستقرة المزمنة مرتبطة بظهور آلام في الصدر، بينما كان ضيق التنفس هو السائد في متلازمة الشريان التاجي الحاد.

الاستنتاجات:

تختلف مستويات الاضطرابات الدهنية في الدم والعوامل الاجتماعية وطريقة عرض الأعراض بشكل كبير بين مجموعات المجتمع. وتُظهر هذه النتائج الحاجة إلى استراتيجيات إدارة فردية لمثل هذه الحالات.

جمهورية العراق

وزارة التعليم العالي

والبحث العلمي

جامعة كربلاء

كلية الطب



عوامل الخطر للذبحة الصدرية المستقرة المزمنة ومتلازمة الشريان التاجي الحاد بين المرضى الذين يراجعون مركز القلب في كربلاء،

رسالة علمية مقدمة إلى مجلس كلية الطب في جامعة كربلاء، كجزء من استيفاء متطلبات الحصول على درجة الدبلوم العالي

من قبل

فرح رحمان سليمان

بكلوريوس طب وجراحة عامة

المشرفين

البروفيسور

د. علي عبد الرضا ابو طحين

استشاري طب الاسرة

زميل المجلس العراقي لطب الاسرة

د احمد قاسم الحيدري

اخصائي امراض القلب والتداخل القسطاري

زميل المجلس العراقي للطب الباطني