Assessment of some Risk Factors of Patients with Coronary Heart Disease (CHD) in Al - Zahra Hospital in AL-Kut City

Ayyed Mohammed Namoos

Community Health, Middle Technical University

College of Health and Medical Technology/Baghdad/Iraq

drnihadkhalawe@gmail.com

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Abstract

Background: Most public form of heart disease and the single most main cause of early death in the developed world, coronary heart disease (CHD) extended epidemic percentage in the twentieth century. Improved knowledge about the risk factors paying to this disease could be probable to decrease the occurrence.
Aim: To assess of some risk factors of patients with (CHD) in al- Zahra hospital in the Kut city**.**

Patient and methods: The study is a hospital-based case-control study carried out during the period from (September – December) 2017. An appropriate sample of patients with CHD was attained cardiology wards in al Zahra hospital in kut city and their controls. Data were collected by direct interview with patients using a superior questionnaire form considered for the study purpose. The cases were the electrocardiogram(ECG) definite with CHD, and controls were accorded for age, gender. The sample size was 100 cases and 200 controls.

Results: The results revealed that common cases were 12.0% among age group (60-69) years .Higher percentage of cases were existed in the urban areas.

Conclusion: The relationship between smoking habits, family history of heart disease, alcohol drinking, hypertension, diabetes mellitus, meals contain high fat, psychological disorder, nervous and physical activity were statistically significantly associated with coronary heart disease.

Introduction :-

Coronary heart disease (CHD) due to atherosclerosis is a major cause of death all over the world and is the most common form of heart diseases. Its incidence is increasing among different populations and by 2020 it is estimated that it will be the major cause of death all over the world. (CHD) is common in the general population, affecting the majority of adults after the age of 60 years. [1].

The perception of "risk factors" in (CHD) was first invented by the Framingham heart study (FHS), which published its findings in 1957. FHS established the epidemiologic relations of cigarette smoking, blood pressure, and cholesterol levels to the occurrence

of (CHD). The outcomes were truly revolutionary for it helped bring about a modification in the way medicine is practiced. [2] Coronary heart disease (CHD) take place when the artery that supply blood to the heart muscles convert hardened and constricted from building of panel on the inside walls and leading to decreasing blood flow to your heart muscles. [3] CHD is a main cause of incapacity and early death throughout the world. The fundamental pathology of atherosclerosis progresses over many years and frequently progressive by the time symptoms take place, usually in intermediate age.

The risk of emerging CHD increases with age, and comprises age(>45) years in men and (>55) years in women. A family history of early heart disease is also a risk factor, such as heart disease in the father or a brother detected before age 55 years and in the mother or a sister identified before age 65 years.[4] Depression is a chief public health concern characterized by high lifespan onset, determination over time and reappearance. Depression as a risk factor for happening (CHD) has been comprehensively examined, and high prevalence and incidence of depression in cardiac patients has been detected recurrently. [5] A common symptom and early sign of (CHD) is the variety of chest pain identified as angina pectoris additional common symptom of (CHD) are fewer of breath this symptoms occurs if (CHD) reasons heart failure.[6] (CHD) extended epidemic percentage in the twentieth century. Improved knowledge about the risk factors causing to this disease could be predictable to decrease the incidence.[7,8] (CHD) remnants one of the important public health concerns. It is one of the further most significant diseases in the united states and many other industrialized countries in respect to both mortality and morbidity and is the main cause of death in most developed countries.[9,10] Revealed a study in Iraq has a high occurrence of (CHD).[1] (CHD) and stroke are the leading reasons of death in both economically developed and developing countries . Each year, more than 17 million people die from cardiovascular disease international. Presently, 80% of deaths due to (CHD) or stroke occurrence in developing countries.[11]

Epidemiological studies have insulated different risk factors which could be associated in risk factors of (CHD), the main risk factors are hypertension, diabetes, cigarette smoking, high blood cholesterol, lack of physical activity and reduced high density lipoprotein (HDL) .There are also an extensive number of secondary risk factors which comprise age, sex, obesity, work linked factors and some genetic factors .More debatable risk factors are chronic stress, behavior type, life events and social sustenance, and the adverse emotions such as depression and anxiety have been related with the development of (CHD).[7] There is an principal association between age and sex and the occurrence of (CHD). (CHD) incidence below 30 years of age is rare, whereas amplified incidence is detected after age (30) years. Even though the variance in the incidence rates between sexes reduces with growing age, the disease is constantly more prevailing in men at all ages, and is the leading reason of death in both sex accounting for 50%. [12] The main changeable CHD risk factors are smoking, hypertension and diabetes in Iraq. [13]

Materials and methods

The Study Setting:

The study was carried out in the Kut city in al-Zahra hospital.

The study Design: A hospital –based case –control study was employed and an appropriate sample of patients with CHD attending the above hospitals involved in the study.

The Study Sample:

Matters in this study comprised all patients (cases) of CHD admitted to the cardiology wards in al Zahra hospital and their controls .Sample size was 100 cases and 200 controls.

Criteria for the selection of cases and controls

1) Inclusion criteria:

-All the patients who were diagnosed by the electrocardiogram(ECG) as coronary heart disease.

-All age groups and both genders.

- Controls

-Age gender are matched and do not have CHD and other type of heart diseases.

2) Exclusion criteria:

-Patients who live outside Kut city.

Duration of the study:

Data collection was carried out from(September –December) 2017.

Data Collection

Data were collected through interview of cases and controls using questionnaire form .

The Questionnaire:

The data from cases and controls were collected by a special questionnaire form designed for the study purpose.

The questionnaire form consists of:

- Demographic information: Includes age in years, gender, socio- economic status includes
- Socio-economic status: Includes material status, educational level, occupation and residence.

Also it included some risk factors smoking , alcohol drinking practicing sport, meals contain high quantity fat, chronic disease , psychological pressure and family history of (CHD).

Statistical analysis:-Statistical was that descriptive frequency percentage chi square to find any association between variables also Odd ratio(OR) and Confidence interval(CI).

Result

Table(1) :Distribution of age ,according to case and controls.

Age Groups	Groups				Total	
	Cases		Controls			
	Number	%	Number	%	Number	%
< 50	27	9.0	54	18.0	81	27.0
50 - 59	27	9.0	54	18.0	81	27.0
60 - 69	36	12.0	72	24.0	108	36.0
> = 70	10	3.3	20	6.7	30	10.0
Total	100	33.3	200	66.7	300	100.0

Results in table (1) showed that higher percentage of cases were in the age group (60-69)years (50-59) years (<50) years and ≥70 years as(12.0, 9.0, 9.0 and 3.3)% ,respectively, and the higher percentage of controls (24.0)% also in the age groups (60-69) years.

Table(2):Distribution of age, according to male and female.

Age Groups	Gender				Total	
	Male		Female			
	Number	%	Number	%	Number	%
< 50	41	13.7	40	13.3	81	27.0
50 - 59	39	13.0	42	14.0	81	27.0
60 - 69	58	19.3	50	16.7	108	36.0
> = 70	12	4.0	18	6.0	30	10.0
Total	150	50.0	150	50.0	300	100.0

The results in table (2) Shows that higher percentage of males in age groups (60-69) years and (<50) years ,as (19.3 and 13.7)% respectively while the higher percentage of females in the age groups (60-69) years and (50-59) years , as(16.7and 14.0)% respectively.

Table(3): Distribution of gender according to cases and controls.

Gender	Groups				Total	
	Cases		Controls			
	Number	%	Number	%	Number	%
Male	50	16.7	100	33.3	150	50.0
Female	50	16.7	100	33.3	150	50.0
Total	100	33.3	200	66.7	300	100.0

Shows that the total number of cases were (No.=100, 33.3)%, the number of males were (No.=50, 16.7)%, and the number of females also were (No.=50, 16.7)%, while the total number of controls were (No.=200, 66.7)% , the number of males were (No.=100, 33.3)% and the number of females also were (No.=100, 33.3)%.

Table(4): Distribution of cases and controls according to demographic characteristics.

Demographic characteristics	Cases		Controls		Total		Test
	Number	%	Number	%	Number	%	
Marital status							
Espoused	72	24.0	159	53.0	231	77.0	P-value =0.09 (N.S.)
Unwedded	1	.3	9	3.0	10	3.3	
Separatism	3	1.0	2	.7	5	1.7	
Divorcees	4	1.3	3	1.0	7	2.3	
Widowers	20	6.7	27	9.0	47	15.7	
Total	100	33.3	200	66.7	300	100.0	
Education level							

Illiterate	**15**	**5.0**	**18**	**6.0**	**33**	**11.0**	**P-value =0.06 (N.S.)**
Recites& Write	**17**	**5.7**	**23**	**7.7**	**40**	**13.3**	
Elementarily	**17**	**5.7**	**24**	**8.0**	**41**	**13.7**	
Middler	**19**	**6.3**	**38**	**12.7**	**57**	**19.0**	
Accessory	**3**	**1.0**	**18**	**6.0**	**21**	**7.0**	
Tertiary	**29**	**9.7**	**79**	**26.3**	**108**	**36.0**	
Total	**100**	**33.3**	**200**	**66.7**	**300**	**100.0**	
Occupation status							
Official	**29**	**9.7**	**74**	**24.7**	**103**	**34.3**	**P-value=0.51 (N.S.)**
Earner	**1**	**.3**	**4**	**1.3**	**5**	**1.7**	
Enceinte	**34**	**11.3**	**54**	**18.0**	**88**	**29.3**	
Pensioner	**18**	**6.0**	**30**	**10.0**	**48**	**16.0**	
Does not work	**18**	**6.0**	**38**	**12.7**	**56**	**18.7**	
Total	**100**	**33.3**	**200**	**66.7**	**300**	**100.0**	
Residence							
Urban	**63**	**21.0**	**150**	**50.0**	**213**	**71.0**	**P-value= 0.03 (S.)**
Rural	**37**	**12.3**	**50**	**16.7**	**87**	**29.0**	
Total	**100**	**33.3**	**200**	**66.7**	**300**	**100.0**	

Results in table (4) showed that the higher percentage of cases (24.0 and 53.0)% of controls were espoused .The higher percentage of cases(9.7%) was among tertiary compare to controls (26.3%) while the lower percentage of cases (1.0 and 6.0)% of controls among a accessory. Also results that the higher percentage of cases (11.3 and 18.0)% of controls in housewife. This table reveals that (21.0 and 50.0)% of controls were residence in an urban area.

Table(5): Distribution of cases and controls according to smoking habits.

Cigarette habits	Cases		Controls		Total		OR	95%CI	P-value
	Number	%	Number	%	Number	%			
Rolling Cigarette	46	15.3	55	18.3	101	33.7	3.97	2.204-7.16	0.000 (H.S.)
Heavy Cigarette	9	3.0	17	5.7	26	8.7	2.51	1.00-6.31	
Ex- Cigarette	21	7.0	14	4.7	35	11.7	7.12	3.17-15.96	
Not Cigarette	24	8.0	114	38.0	138	46.0	-	-	
Total	100	33.3	200	66.7	300	100.0	-	-	

This table shows that the frequency of current smoker was (15.3)% lower than controls (18.3%). So smoker carries very highly significant association of developing CHD (OR= 3.97;95%CI=2.204-7.16;P=0.000), the association of passive and ex-smoker is significant 95%CI of odds ratio were 1.002-6.31 and 3.17-15,96 respectively.

Table(6)distribution of cases and controls according to duration of smoking in years.

Duration of;	Cases	Controls	Total	OR	95%CI	P-value

Cigarette in years	Number	%	Number	%	Number	%			
1 – 19	11	3.7	10	3.3	21	7.0	2.95	1.18-7.34	0.01 (S.)
20 -39	33	11.0	41	13.7	74	24.7	2.16	1.24-3.76	
>= 40	2	.7	4	1.3	6	2.0	1.34	0.23-7.54	
Not Cigarette	54	18.0	145	48.3	199	66.3	-	-	
Total	100	33.3	200	66.7	300	100.0	-	-	

This table shows that relative to duration of smoking ,the highest frequency of cases (11.0%) were in (20-39) years and difference between cases and controls was a very highly significant association for increasing risk of CHD (OR=2.16;95%CI=1.24-3,76;P=0.01).

Table(7): Distribution of cases and controls according to no, of cigarette per day.

Number of cigarette per day	Cases		Controls		Total		OR	95%CI	P-value
	Number	%	Number	%	Number	%			
20 – 29	11	3.7	33	11.0	44	14.7	0.89	0.42-1.89	0.000 (H.S.)
30 -39	7	2.3	12	4.0	19	6.3	1.56	0.58-4.18	
>= 40	28	9.3	10	3.3	38	12.7	7.51	3.42-16.51	

Not	**54**	**18.0**	**145**	**48.3**	**199**	**66.3**	**-**	**-**	
Total	**100**	**33.3**	**200**	**66.7**	**300**	**100.0**	**-**	**-**	

This table shows that highest percentage of Number of cigarette per day(≥40) cigarette were 9.3% of cases while (20-29) cigarette were 11.0% of controls . The number >=40 cigarette per day was 7.51 times more prone to develop CHD than the other groups 95%CI=3.42-16.51 which carried a very highly significant association (P=0.000).

Table(8): Distribution of cases and controls according to alcohol drinking.

Alcohol drinking	Cases		Controls		Total		OR	95%CI	P-value
	Number	%	Number	%	Number	%			
Yes	**7**	**2.3**	**10**	**3.3**	**17**	**5.7**	**0.69**	**0.25-1.89**	**0.48 (N.S.)**
No	**93**	**31.0**	**190**	**63.3**	**283**	**94.3**			
Total	**100**	**33.3**	**200**	**66.7**	**300**	**100.0**			

This table shows that percentage of alcohol drinking persons 2.3% was in these cases while 3.3% was in controls, odd ratio 0.69 with significant association 95%CI= 0.25-1.89.

Table(9): Distribution of cases and controls according to family history of heart diseases.

Family history of heart disease	Cases		Controls		Total		OR	95%CI	P-value
	Number	%	Number	%	Number	%			
Yes	35	11.7	10	3.3	45	15.0	0.09	0.04 - 0.2	0.000 (H.S.)
No	65	21.7	190	63.3	255	85.0			
Total	100	33.3	200	66.7	300	100			

This table shows that frequency of family history of heart diseases was 11.7% in these cases, while in the controls it was 3.3%. The risk of having CHD in patients with a family history of heart diseases significantly increased 0.09 times.

Table(10): Distribution of cases and controls according to chronic diseases(diabetes mellitus and hypertension).

Chronic disease	Cases		Controls		Total		OR	95%CI	P-value
	Number	%	Number	%	Number	%			
Diabetes mellitus									
Yes	75	25.0	26	8.7	101	33.7	0.05	0.02 -0.9	0.000 (H.S.)
No	25	8.3	174	58.0	199	66.3			

Total	**100**	**33.3**	**200**	**66.7**	**300**	**100.0**			
Hypertension									
Yes	**87**	**29.3**	**70**	**23.3**	**157**	**52.3**	**0.08**	**0.04 -0.15**	**0.000 (H.S.)**
No	**13**	**4.3**	**130**	**43.3**	**143**	**47.7**			
Total	**100**	**33.3**	**200**	**66.7**	**300**	**100.0**			

This table shows that high percentage of cases with diabetes mellitus (25.0%) than controls (8.7%) , odd ratio 0.05 with significant association 95%CI=0.02-0.9. also high percentage of cases with hypertension (29.0%) than controls (23.3%), odd ratio 0.08 with significant association 95%CI=0.04-0.15.

Table(11): Distribution of cases and controls according to taken meals contained high quantity fat.

Are you take meals contain high quantity fat	Cases		Controls		Total		OR	95%CI	P-value
	Number	%	Number	%	Number	%			
Yes	**82**	**27.3**	**47**	**15.7**	**129**	**43.0**	**0.06**	**0.03 - 0.12**	**0.000 (H.S.)**
No	**18**	**6.0**	**153**	**51.0**	**171**	**57.0**			

Total	**100**	**33.3**	**200**	**66.7**	**300**	**100.0**			

This table shows that the percentage of cases that were taken meals contained high quantity fat (27.3%) than controls (15.7%) ,odd ratio(0.06) with significant association 95%CI=0.03-0.12.

Table(12): Distribution of cases and controls according to psychological disorders and / nervous.

Are you suffering from psychological disorder and nervous	Cases		Controls		Total		OR	95%CI	P-value
	Number	%	Number	%	Number	%			
Yes	**82**	**27.3**	**60**	**20.0**	**142**	**47.3**	**0.09**	**0.52 - 0.17**	**0.000 (H.S.)**
No	**18**	**6.0**	**140**	**46.7**	**158**	**52.7**			
Total	**100**	**33.3**	**200**	**66.7**	**300**	**100.0**			

This table shows that percentage of cases suffering from psychological disorder and nervous (27.3%) than controls (20.0%) , odd ratio(0.09) with significant association (95%CI= 0.52-0.17).

Table(13): Distribution of cases and controls according to exercise sport.

Are you exercise sport	Cases		Controls		Total		OR	95%CI	P-value
	Number	%	Number	%	Number	%			
Yes	**6**	**2.0**	**34**	**11.3**	**40**	**13.3**	**3.2**	**1.29 - 7.92**	**0.008 (H.S.)**
No	**94**	**31.3**	**166**	**55.3**	**260**	**86.7**			

Total	**100**	**33.3**	**200**	**66.7**	**300**	**100.0**			

This table shows that percentage of cases that exercise sports was lower (2.0%) than controls (11.3%), odd ratio (3.2) with significant association (95%CI=1.29-7.92).

Discussion

Coronary artery diseases are caused due to deficient blood and oxygen flow to the heart muscle and will be the chief cause of death. The risk factors of CHD are divided into unalterable factors (age, and genetic factors) and changeable factors (smoking, obesity and psychosocial factors).[14]

The study revealed the data exhibit an amassed incidence of CHD with age extending from 9.0% at the age groups <50 years to 9.0% at the age groups 50-59 years and the high percentage 12.0% were in the age groups 60-69 years .These results are agreeing with the reported increasing incidence of CHD with age in Saudi Arabia as estimates for 8.5% at <50 years, 9.3% at 50-59 years and 10% at 60-70 years .[15] Another study in Iran2014 showed that ageing increases the risk of CHD.[16] This outcome similar to our study. It is evident that CHD is a disease of old age. The study showed that studied group the rate of CHD in males identical to females. In this study males had higher percentage 19.3% in the age groups 60-69 years while the females 16.3% in the age group 60-69 years, these findings similar to a study in Iran 2014 showed that the gender, a significant association was found between patients and controls of CAD (CI 95%, 4.014-10.052, OR 6.352).[16] Yusuf S *et al* 2004 a study also reported that the percentage of males 13.7% in the age groups <50 years while the percentage of females 13.3% in the same age groups , these findings similar to in Jordan found that the rate of CHD in males was higher than in females among patients below 50 years old .[17] These results agreement with our study.The highest percentage 24.0% of cases were married, which is similar to study done by Suhela Shams El-Deen, 2012 in Kabul tarihi[18], she found that married person had higher percentage of CHD 95%. The higher rate of CHD in married patients than unmarried ones may be related to stress of life and higher responsibility for the family.High percentage of cases 9.7% were college and higher which disagree with Ali janati, in 2011,Tehran , Iran[19]. found that most of CHD cases 25% were in primary school. Regarding the residence, 21.0% of cases in this study were living in urban area, which agrees with the study that was done by Al-Nozha, in 2004 ,Sudia.[15]Who reported that Urban Saudis have 6.2% occurrence of CAD, which is significantly higher, as one would expect, than rural Saudis of 4%(P<0.0001).Result study of Budnik and Opolski in 2015 founded that 85% of CHD mostly women, younger, higher-educated, coming from urban area.[8]This results disagree with our study . Revealed study that the current smokers were 3.97 times more disposed to develop CHD than other group, 95%CI=2.204-7.16 which carried a very highly significant association (P=0.0001) . This finding was supported by many studies, which indicated that cigarette smoking plays an important risk factor in the occurrence of CHD, Hameed. A. Ali, in 2010 ,Basrah [20], found a significant relationship between

smoking habits with (p-value=0.001) and having CHD , OR (95%CI)2.04 (1.21;3.19), While the association of passive and ex-smokers with CHD is significant, 95% CI of odd ratio were (1.002-6.31 and 3.17-15.96) respectively. Duration of smoking in years had a significant association with CHD (p<0.01). The risk of having CHD was significantly increased(2.16) times in (20-39) years, than other groups (95%CI=1.24-3.76). This result is similar with the finding that was reported by Virtanen *et.al.,*.in (2016).[5] This study found that the number of cigarette per day is significantly associated with CHD (p<0.0001). The risk of having CHD is significantly increased 7.51 times in smokers ≥40 cigarette per day than other groups(P>0001). This result was similar to the study that done by f.Huang *et.al.,* (2000) found that the coronary heart disease associated with cigarette smoking of 1.5 (95% confidence interval CI, 1.1-2.1; P = 0.12).

There was a significant dose-response relationship with cigarette smoking. [21] The significant association between alcohol drinking and the risk of CHD (p<0.48), the percentage of drinkers was 2.3% in cases, and percentage of nondrinker was 31.0% in cases, with odd ratio 0.89 and significant association (95%CI 0.25-1.89). This results was similar to the study with Lim *et. al.*, (2013).[22] CHD cases had family history of heart disease 0,09 times more than other group, 95%CI=0.04-0.2 which carried a very high significant association (P=0.0001), This finding agreement with study Safarova *et.al.*, (2016).[23] The percentage of cases with diabetes mellitus was 25.0% that had odd ratio 0.05 and significant association (95%CI=0.02-0.9),(P=0.0001) .This finding in agreement with study done by study Elvin Zengin et. al.(2015) found that diabetes mellitus was the risk factor with the strongest influence regarding occurrence of CHD (Odd ratio; OR:1.70, confidence interval; CI 95%: 1.36-2.11; P<0.0001).[24] This results similar to our study. In this study , the percentage of cases with hypertension was 29.0% that had odd ratio 0.08 and significant association (95%CI=0.04-0,15),(P=0.0001) .This findings was similar with study Milane *et.al.*, (2014).[25] The percentage of cases that take meal containing high quantity fat was 27.3% that have significant association (95%CI=0.03-0.12), with odd ratio 0.06(P=0.0001).This is similar to study done by Willett MD ,(2012).[26] Appeared the study ,percentage of cases with psychological disorder and nervous were (27.3%) with significant association(0.52-0.17) and odd ratio 0.09(P-value=0.0001).

This is agreement with study done by Homoud , (2008) , [27],founded significant association between psychological disorder and nervous also the risk of CHD(95%CI=0.50-0.20),with odd ratio 0.08(P-value=0.001). Kivimäki (2013) founded variables explained part (27%) of association between perceived adverse impact of stress on health and CHD. This finding is agreement with our study.[28] And showed of study the percentage of cases who practices exercise was 2.0% with significant association (1.29-7.92) and odd ratio 3.2 times (P=0.0001). Hintsa in (2010) found that practices exercise were associated with risk for CHD: ORs (95% CI) were 1.33 (1.03 to 1.73).[29] This results were disagreed with our study. In addition to our main finding, Gander *et. al.*, (2014)also found that age, blood pressure, total cholesterol, high-density lipoprotein , diabetes diagnosis, and smoking status were associated with CHD events. [30]

Conclusion

Common of cases occur in the age groups (60-69) years old and proportion is same existence in male and female but in female CHD late in seeming. A high proportion of cases exist in urban areas. The relationship between smoking habits, family history of heart disease, hypertension, diabetes mellitus, meals contain high fat, psychological disorder and nervous and physical activity were statistically significant linked with coronary heart disease.

Recommendation

It is important to facility with clinical practice educational programs for post-coronary interference patients. These patients are at highest risk of having cardiovascular events. Educational programs should be guying to all post-coronary interference patients, particularly to those arrivals from urban areas . Community interferences and education programs should carry on to goal these CHD risk factors to pretty far the prevention of heart disease.

Reference

1- Mohammad, Ameen Mosa, Sabri Khalif Sheikho, and Jasim Mohammed Tayib. "Relation of Cardiovascular Risk Factors with Coronary Angiographic Findings in Iraqi Patients with Ischemic Heart Disease." *American Journal of Cardiovascular Disease Research* 1.1 (2013): 25-29.

2-Rachel Hajar. Risk Factors for Coronary Artery Disease: Historical Perspectives 2017 18(3): 109–114.

3- Goff DC, Jr, Lloyd-Jones DM, Bennett G, Coady S, D'Agostino RB, Gibbons R, *et al*. ACC/AHA guideline on the assessment of cardiovascular risk: A Report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines. Circulation. 2014;129:S49–73.

4- Mahmood SS, Levy D, Vasan RS, Wang TJ. The Framingham heart study and the epidemiology of cardiovascular disease: A historical perspective. Lancet. 2014;383:999–1008.

5- Marianna Virtanen1, Marko Elovainio ,Kim Josefsson, G David Batty, Archana Singh-Manoux, Mika Kivimäki,. Coronary heart disease and risk factors as predictors of trajectories of psychological distress from midlife to old age.2016

6- F Brian Boudi, MD, FACP; Chief Editor: Yasmine Subhi Ali, MD, FACC, FACP, MSCI.
Risk Factors for Coronary Artery Disease Nov 27, 2016

7-Luepker R. Decline in incident coronary heart disease: why are the rates falling? Circulation 117(5):592-593, 2008.

8-Budnik M[1], Opolski G. The assessment of coronary heart disease risk factors correlated with demographic and social data in post-coronary intervention patients in Polish population. Cardiol J. 2015;22(3):276-84.

9-Klein LW, Nathan S. Coronary artery disease in young adults. J Am Coll Cardiol. 2003;41(4):529-31.

10- Kannel WB. Hypertension: Reflections on risks and prognostication. Med Clin North Am. 2009;93:541–58.

11-Epidemiology of Cardiovascular Disease Michael J. Klag, in Goldman's Cecil Medicine (Twenty Fourth Edition), 2012

12-Jennifer Arts Maria Luz Fernandez Ingrid E. Lofgren Coronary Heart Disease Risk Factors in College Students. Advances in Nutrition, Volume 5, Issue 2, 1 March 2014, Pages 177–187.

13-Cetorelli, Valeria, Burnham, Gilbert and Shabila, Nazar Prevalence of non-communicable diseases and access to health care and medications among Yazidis and other minority groups displaced by ISIS into the Kurdistan region of Iraq. Conflict and Health, 11 (4). 2017 pp. 1-7. ISSN 1752-1505.

14-Zohreh Khayyam-Nekouei, Hamidtaher Neshatdoost, Alireza Yousefy, Masoumeh Sadeghi, andGholamreza Manshaee. Psychological factors and coronary heart disease. 2013 Jan; 9(1): 102–111.

15-*Mansour M. Al-Nozha,* Saudi Med J 2004; Vol. 25 (9): 1165-1171.

16-Seyeed Mohammad Bager Tabei, Sara Senemar, Babak Saffari, Zeinab Ahmadi, and Somayeh Haqparast. Non-modifiable Factors of Coronary Artery Stenosis in Late Onset Patients with Coronary Artery Disease in Southern Iranian Population. 2014; 6(1): 51–55.

17-Yusuf S, Hawken S, Ounpuu S, Dans T, Avezum A, Lanas F, et al. Effect of potentially modifiable risk factors associated with myocardial infarction in 52 countries (the Inter Heart study): case-control study. 2004; 364(9438): 937–952.

18-Suhela Shams El-Deen TAHİR1, Mohammed Abdul-Aziz KADİR2, Nihad Abdul Jabar, JALAL.Correlation Of Lipid Profile And Diet With Premature Coronary Heart Disease In Kirkuk City-Iraq Ankara Medical Journal 2013; 13(1):11-15.

19-Alireza Yaghoubi MD1*, Zeynab Falsafi MD2, Shahin Imani BS3, Samad Ghaffari MD4, Simin Taghavi MD5 .History of Fertility and Coronary Artery Disease in Iranian Women Older
than 50 Years Old. 2009.
20- Hameed. A. Ali, Abdul Raheem H. Al-Humrani & Hadeel.T. Al-Hadithi. CHLAMYDIA PNEUMONIC. INFECTION IN CORONARY HEART DISEASE IN BASRAH .MJBU vOL 28 (1) 2010 pp.23-26.

21-Andrew Moran, Dongfeng Gu, Dong Zhao, Pamela Coxson, Claire Wang, Chung-Shiuan, Jing Liu, Jun Cheng, Kirsten Bibbins-Domingo, Yu-Ming Shen, Jiang He, and Lee Goldman. Future cardiovascular disease in China: Markov model and risk factor scenario projections from the Coronary Heart Disease Policy Model-China 2010 May; 3(3): 243–252.

22- Maria Cristina Pereira Lima ,Florence Kerr-Côrrea,Jurgen Rehm. Alcohol consumption pattern and Coronary Heart Disease risk in Metropolitan São Paulo: analyses of GENACIS Project. Rev. bras. epidemiol. vol.16 no.1 São Paulo Mar. 2013
23-Maya S. Safarova, Kent R. Bailey, Iftikhar J. Kullo. Association of a Family History of Coronary Heart Disease With Initiation of Statin Therapy in Individuals at Intermediate Risk: Post Hoc Analysis of a Randomized Clinical Trial. *JAMA Cardiol.* 2016;1(3):364-366.
24-Elvin Zengin ,Christoph Bickel ,Renate B. Schnabel,Tanja Zeller,Karl-J. Lackner,Hans-J. Rupprecht, Stefan Blankenberg, Dirk Westermann , Risk Factors of Coronary Artery Disease in Secondary Prevention—Results from the Athero*Gene*—Study. Published: July 8, 2015.
25-Aline Milane, Jad Abdallah, Roy Kanbar, Georges Khazen, Michella Ghassibe-Sabbagh, Angelique K Salloum,Sonia Youhanna, Aline Saad, Hamid El Bayeh, Elie Chammas, Daniel E Platt, Jörg Hager, Dominique Gauguier,Pierre Zalloua, Antoine Abchee, and FGENTCARD Consortium Association of hypertension with coronary artery disease onset in the Lebanese population 2014 Sep 16.
26- Walter C. Willett MD.Dietary fats and coronary heart disease. USA. 14 May 2012
27-. Munther K. Homoud, in ,England and Beckett, G.J. lecture Notes on Clinical Chemistry . 4th. Edit. Blackwell scientific Publications, Oxford, London, Edinburgh (2008) P. 233.
28-Hermann Nabi Mika Kivimäki G. David Batty Martin J. Shipley Annie BrittonEric J. Brunner Jussi Vahtera Cédric Lemogne Alexis Elbaz Archana Singh-Manoux. Increased risk of coronary heart disease among individuals reporting adverse impact of stress on their health: the Whitehall II prospective cohort study .European Heart Journal, Volume 34, Issue 34, 7 September 2013, Pages 2697–2705.

29- Hintsa T, Shipley MJ, Gimeno D, Elovainio M, Chandola T, Jokela M, et al. Do pre-employment influences explain the association between psychosocial factors at work and coronary heart disease? The Whitehall II study. Occup Environ Med. 2010;67(5):330–4.

30- Jennifer Gander, MSPH, Xuemei Sui, MD, MPH, PhD, Linda J Hazlett, PhD, Bo Cai, PhD, James R. Hébert, ScD, andSteven N. Blair, PED. Factors Related to Coronary Heart Disease Risk Among Men: Validation of the Framingham Risk Score. 2014 Aug 14.

تقييم بعض عوامل الخطورة للمرضى المصابين بأمراض القلب التاجية في مستشفى الزهراء /مدينة الكوت

عايد محمد ناموس
صحة مجتمع
كلية التقنيات الصحية و الطبية /بغداد/العراق

الخلاصة

يعتبر من امراض القلب الاكثر شيوعا, وهو السبب الوحيد المؤدي للوفاة المبكرة في العالم المتقدم, وقد بلغ مرض القلب التاجي (CHD) ابعادا مأساوية في القرن العشرين. كان من المتوقع زيادة المعرفة حول عوامل الخطر التي تساهم في هذا المرض للحد من حدوثه. لذا كان الهدف من الدراسة هو تقييم بعض عوامل الخطورة للمرضى الذين يعانون من امراض القلب التاجية حيث اجريت الدراسة في مستشفى الزهراء قسم الامراض القلبية في مدينة الكوت من الفترة (ايلول – كانون الاول) 2017 وتم اخذ عينة ملائمة من المرضى المراجعين للمستشفى الذين يعانون من امراض الشرايين التاجية. وقد جمعت البيانات عن طريق مقابلة مباشرة مع المرضى الذين يستخدمون نموذج الاستبيان الخاص المصمم لغرض الدراسة و كانت الحالات المشخصة عن طريق استعمال جهاز التخطيط الكهربائي للقلب (ECG) وقد تم اخذ عينة ضابطة و كانت متطابقة من ناحية العمر و الجنس وكان حجم العينة (100) و حجم العينة الضابطة (200). اظهرت النتائج ان اغلب الحالات 12.0 % بين الفئة العمرية 60–69 سنة وان اعلى نسبة من الحالات كانت موجودة في المناطق الحضرية . وقد استنتج من هذه الدراسة وجود علاقة بين (عادات التدخين، التاريخ العائلي لأمراض القلب، شرب الكحول، ارتفاع ضغط الدم، داء السكري، وجبات تحتوي على نسبة عالية من الدهون، الاضطراب النفسي والجهاز العصبي النشاط البدني)حيث كانت ذات دالة إحصائية مرتبطة بمرض القلب التاجي.

الكلمات المفتاحية:(CHD) ، التقييم ، المرضى ، مدينة الكوت.