# ASSESSMENT OF RISKFACTORS, KNOWLEDGE AND DIETARY PATTERN AMONG CARDIAC PATIENTS IN AL-YARMOUK TEACHING HOSPITAL IN BAGHDAD CITY, IRAQ-2015

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## ABSTRACT

Coronary heart disease is a major cause of death all over the world which is increasing among youth of Arab countries because of changing of life style.The present study evaluated of risk factors, knowledge &dietary pattern among cardiac patients. Across sectional study among 200 cardiac patients by using already prepared questions' sheet in Cardiac department in AL- Yarmouk Teaching hospital in Baghdad during the period from June – October, 2015. The study revealed that more than half of patients were males, graduated from urban area and less than half were females from rural area with low education. Most of them were over 55 years with age below 35 years among maleswho were smokers>2 packet/day. The average mean of blood cholesterol was 259mg/ dl, SD ± 83.55,(CI 275.38- 242.62),triglycerides was 212 mg /dl,SD ±29. 31, (CI 291.9- 168.1), low Density Lipoproteinwas 155 mg/dl,(SD ±10),high Density Lipoproteinwas 30 mg/dl,SD ±3 for both sexes.The average mean of Body Mass Index was 35, 38 among males and females respectively.Most of males and half of females had uncontrolled hypertension, 70% of females had diabetes mellitus with positive family history of the disease. 10% of patients could cope with stress and most of them didn't do exercise.Those cardiac patients demonstratedinadequate knowledge about the symptomsandrisk factors of the disease.For dietary pattern mostof patients hadfatty food, eggs, a lot off carbohydrate, sugar, saltwith lack of intakeof chicken, fish, vegetables and fruits.60% had oil with cooking daily, 30% had ghee weekly while only 10% had olive oil weekly. 80% of the patients had tea mostly with sugar for 2-3 times/ day. High risk factors with poor awareness, unhealthy lifestyle mostly among low education cardiac patients who had poor knowledge about the disease

Keywords: cardiac patients, knowledge, awareness of risk factors, gender

## INTRODUCTION

Coronary heart disease is the first killer in Europe and America with increasing in Arab Countriesbecause of changing of life style(smoking, fast food, physical inactivity, stress)with increasingof Diabetes Mellitusand Hypertension[1]. In United Kingdom it is the biggest killer that (1) in every (6) women is in the risk and(2) in every (4) men is in the risk[2].By World Health Organization,in Iraq,deaths due coronary heart diseasereached 18.60% of total deaths in2014[3].Coronary heart disease has a number of risk factors

asuncontrolled blood pressure, diabetes, obesity, smoking, lack of exercise, high blood cholesterol, poor diet, family history, excessive alcohol and depression[4,5].Half of cases are related to genetic factors[6].Males havegreater risk to develop the disease thanfemalesbefore menopause,family history ofthe disease before the age of 60 years have a higher risk of developing the disease[7].Diabetic patient has higher risk of developing coronary heart disease because of obesity, sedentary life style and emotional stress[8].A regular smoker of 20 cigarettes/day, the female is 6 times and the male is 3 times likely to develop the disease compared with non-smokers[9].Obesity and smoking are associated with 20%-36% of cases[10].Intake of calcium and supplements with weight loss improve level of HDL[11].Shouldintake healthy balanced food that rich with fibers as find infruits(except avocado), vegetables and brown bread, intake corn& olive oil, white meat, sea food, law fat milk, garlic, onion with intake of nuts in small amounts 4 times / week[12].Olive oil is important to prevent oxidation of total and bad cholesterolwithout effect of useful cholesterol.InCrete island,people use olive oil as the main source of fatwith little cases of coronary heart disease[13].

The aim is assessment ofawareness of riskfactors, knowledge& dietary pattern among cardiac patients in AL -Yarmouk Teaching hospital in Baghdad.

## MATERIALS AND METHODS

Across sectional study on 200 cardiac patients using already preparedquestions' sheet in Cardiac department of AL-Yarmouk Teaching hospital in Baghdad during the period from June – October, 2015.

### Population & Sample size

An interview had done among 200 cardiac patients by using convenience non probability sampling.The sample size had been estimated according to the prevalence of coronary heart disease in Iraqis 9%[14].- An interview questionnaire form had been designed by researcher that bases on: 1.Demographic characteristics & risk factors that include age, gender, education, marital and job status, history of hypertension, diabetes Miletus&other diseases, family history of the disease,obesity,smoking, exercise, stress.2. Knowledgeof the disease: - Has knowledge about the symptoms of the disease.- Has awareness about the risk factors.3. Dietary pattern &Habits of drinking oftea will be rated by frequency distribution table as ; Dividing the food parts according to their groups as meat group, milk group, seed group, vegetable group, fruits, legumes, nuts, other source of fat &sugar, then evaluate the times of intake for each food item for each group and consider a good dietary pattern when there is daily intake or more than 4 times/week for each food item, average dietary pattern when there is 2-3 times /week intake each of food item while consider poor dietary pattern when intake of food item is less than 2 time /week[12].

### Statistical analysis

Statistical testswere applied by using SPSS Version 22-Calculating of confidence Interval at 95% confidence level.

## RESULTS

Table (1)showed that 56% weremales,44% were females, mostly over 55 years with 26% of males were below 35 years.50% of males were graduated from urban while 50% females were illiterate and from rural area.

**Table 1: Distribution of patients according to socio demographic characteristics**

|  | Male | | | Female | | Total | |
|---|---|---|---|---|---|---|---|
| **Number** | 112 | 56% | | 88 | 44% | 200 | 100% |
| **1.Age** | | | | | | | |
| **<35years** | 29 | 26% | | ------ | ------ | | |
| **36-45 years** | 11 | 10% | | 10 | 11% | | |
| **46-55 years** | 11 | 10% | | 20 | 23% | | |
| **>55 years** | 61 | 55% | | 58 | 66% | | |
| **Total** | 112 | 100% | | 88 | 100% | | |
| **3.Education** | | | | | | | |
| **Illiterate** | 32 | 28.6% | | 44 | 50% | | |
| **1st school** | 12 | 10.7% | | 14 | 16% | | |
| **2nd school** | 12 | 10.7 % | | 10 | 11% | | |
| **Gradated** | 56 | 50% | | 20 | 23% | | |
| **Total** | 112 | 100% | | 88 | 100% | | |
| **3.residence** | | | | | | | |
| **Urban** | 56 | 50% | | 44 | 50% | | |
| **Rural** | 50 | 50% | | 44 | 50% | | |
| **Total** | 112 | 100% | | 88 | 100% | | |

Table (2)showed that50% of patients said that it presented as chest pain for both sexes, 21.4 %, 27.2% said that it occurred due to have family history of the disease for both sexes respectively, 39.3%, 36.4% said that it occurred due to intake of fatty food,red meatfor both sexes respectively. Half of them didn't haveknowledge about the disease.

**Table 2: Distribution of patients according to their knowledge about the disease**

| Knowledge | Male | | Female | |
|---|---|---|---|---|
| Yes | 56 | 50% | 44 | 50% |
| __Symptoms (chest pain)__ | 56 | 50% | 44 | 50% |
| Causesa. family historyb. fatty foodc. red meat | 122222 | 21.4 %39.3%39.3% | 121616 | 27.2%36.4%36.4% |
| No | 56 | 50% | 44 | 50% |

Table (3) showed that39.4% of illiteratepatients had awareness, 38.5% of primary school patients had awareness, 68.2% of secondary school patients had awareness, 65.8of graduated patients hadawareness with statistically significance.

**Table 3: Association between Awareness & Education**

| Education | Awareness | | No awareness | | Total |
|---|---|---|---|---|---|
| Illiterate | 30 | 39.4% | 46 | 60.5% | 76 |
| Primary | 10 | 38.5% | 16 | 61.5% | 26 |
| Secondary | 15 | 68.2% | 7 | 31.8% | 22 |
| Graduated | 50 | 65.8% | 26 | 34.2% | 76 |
| Total | 105 | | 95 | | 200 |

$X^2 = 14.73, df =3, P$ value $=0.05$

Figure (1)showed that 90%, 50% of males and females were hypertensive respectively, 40%, 70% of them were diabetic respectively, and 50%,70% had Family history of the disease respectively, 10% could cope with stress and did exercise for both sexes, 80%,33.3% were smokers >2 packets/day respectively.The average mean of blood cholesterol was 259 mg /dl, SD±83.55, (CI 275.38- 242.62) while average mean of triglycerides was 212 mg /dl, SD ±29.31, (CI 217.75- 206.25), LDLP 155 mg/dl, SD±10, HDLP 30mg/dl, SD±3 for both sexes.Average mean of Body Mass Index (BMI) was 35 for males and 38 for females.
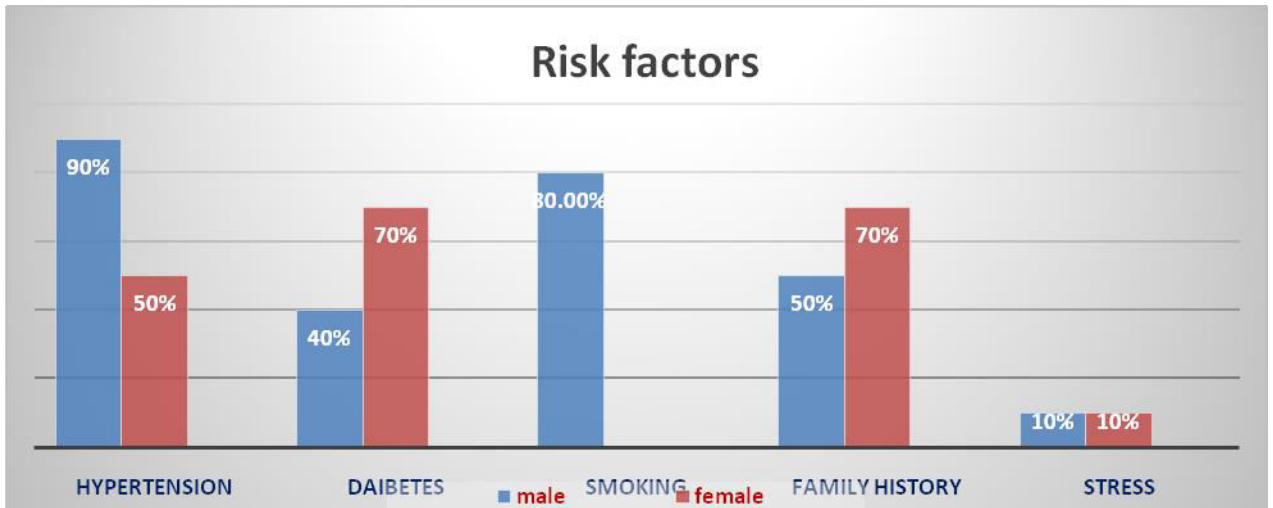
**Figure 1: Distribution of risk factors according to gender**

Figure (2) showed that 30% had poultry daily, 20% weekly 50% monthly, all of them didn't take fish. For milk group the study revealed that 60% had full cream milk, cheese or yogurt daily, 20% weekly and monthly. For starchy food the study showed that 80% of patients had white bread, cooked rice with oil daily and 30% with ghee for both sexes.

For dietary pattern of vegetables, the study showed that 40% had vegetables daily, 20 % weekly, 40% monthly respectively while for dietary pattern of fruit, 50% had orange, apples had banana weekly and monthly respectively for both sexes.- For egg intake, 80% had egg with oil weekly. 60% of patients had oil with cooking daily & 30% had ghee weekly, 10% had olive oil. 80% drank tea mostly with sugar with a rate from 2-3 times /day for both sexes. All of patients had ordinary salted food.

**Figure 2: Distribution of dietary pattern according to food groups**
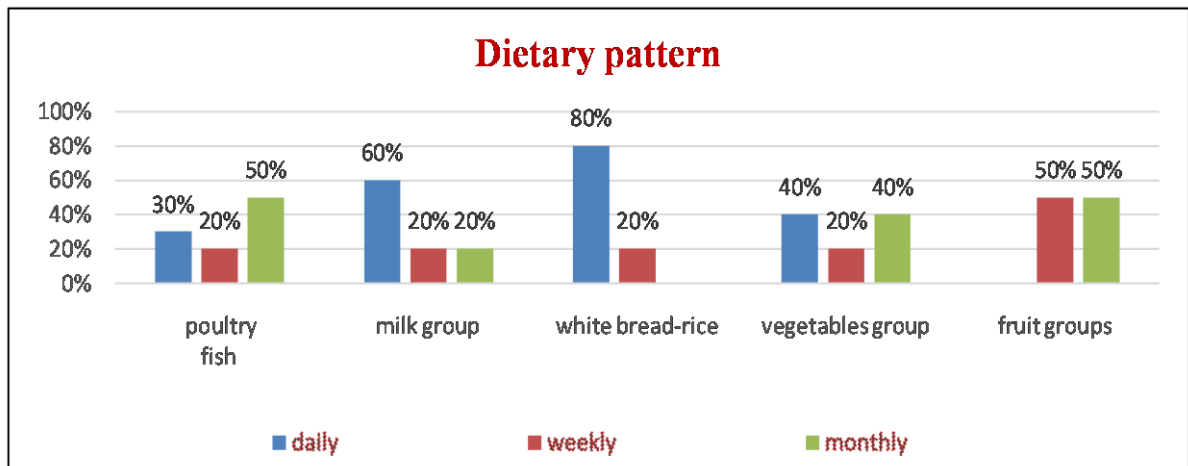
## DISCUSSION

The study revealed that more than half of patients were males, graduatedfrom urban area and less werefemales from rural area with low education. Most of themwere over 55 years with age below 35 years among males.Cardiovascular disease develops in women as in men in 10 years later that it is the major cause of death in > 65 years'women[15]. The averagemean of lipid profileswas still highwith increased level of Body Mass Indexthat these risk factors still higher than the internationally recognized with recent studies[16].Most of maleshad hypertension while most of females had diabetes mellitus with positive family history of the disease. Both sexes didn't cope to stress, didn't doexercise with more than one packet smoking of cigarette/dayfor males, the same finding was observed in a study in Iran that15% had positive familial history of heart disease, 60.3% were diabetic, 21.6% were smoker, most of them had increased lipid profileswith physically inactive [17,18].Most of them had poor knowledge about the disease that mostly associatedwith low education with staticallysignificance.In Karbala the same findingwas discovered that there was defect in the health education programs about coronary heart diseases and changing lifestyle[19].For dietary pattern the study showed that there was a lot of intake of carbohydrate, fat whether through milk and milk products, eggs or with cooking and lack of intakeof whitemeat,fruits and vegetables whichwas consistent with the results of a study was conducted in Baghdad during the period between 2003 to 2004[20].There washigh intakeof tea for several times with sugar, this was consistent with the results of the study conducted in Baghdad in 2004 [21].

## CONCLUSION

High risk factors with poor awareness, unhealthy lifestyle mostly among low education cardiac patients who had poor knowledge about the disease.

## ETHICAL CLEARANCE

The Research Ethical Committee at scientific research by ethical approval of both environmental and health and higher education and scientific research ministries in Iraq

## CONFLICT OF INTEREST

The authors declare that they have no conflict of interest.

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