



## **Burden of Heart attack in Relation to Age, Sex, Exercise, Obesity, and Gender in DHQ Hospital KDA District Karak**

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### **ABSTRACT**

*An observational study was made in cardiology section, Divisional Headquarters Hospital district Karak on May 2016. About 72 respondents with suspected heart complications were analyzed there by cardiac specialist. ECG was performed for confirmation of their heart disorders. Respondents were asked questions related to study, all data were recorded on the questionnaire. A total of 72 respondents were included in this study who came for their check-up in the cardiology section of DHQ hospital KDA district Karak. Out of them 61% of the respondents were confirmed Heart patients while the rest of them were healthy i.e. non-heart patients. An elevated percentage of heart patients were observed in the age group 41-50 years of age as well as in 60 and above years of age i.e. 82.35%. While at least percentage was observed in the age group 21-30 years i.e. 28.57%. No respondent with heart disease was observed below 20 years of age. This study reveals that increasing age increases the chances of heart attack. A high percentage (76.19%) of heart patients were those who didn't do any physical exercise in their daily routine. This reveals that physical exercise reduces that chances of heart attack, those who were involved in physical exercise, were healthy. A high percentage (84.62%) of married respondents were suffering from myocardial infarction. This percentage was lower in respondents with single marital status, i.e. 55.93%. In this study male respondents were found at higher risk of heart diseases, i.e. 70.00% as compared to female respondents i.e. 50.00%. Obesity is considered to be a major reason of heart attack in in DHQ hospital Karak, about 89.09% of the obese respondents had heart disease. Obesity is considered to be a major reason of heart attack in in DHQ hospital Karak, about 89.09% of the obese respondents had heart disease. While a large percentage of non-obese respondents were found healthier.*

**Key Words:** Heart Attack, Age, Sex, Exercise, Obesity, DHQ, KDA Karak

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### **INTRODUCTION**

The heart attack is also called cardiac arrest, it is a disorder which is caused due to insufficient blood supply to the heart itself and the heart is unable to perform its normal function properly [1]. In this condition a patient feels a complication called angina pectoris or most commonly called chest pain. Complication of heart attack increases with the increasing age [3]. In above 70 years of age, heart attack arises without any visible symptom. [4]. Heart complications are more common in those people who do not do any physical exercise or they having obesity [5,6]. Male are at higher risk of heart attack as compared to women [7]. As age passes, a male or female become more susceptible to heart attack [8].

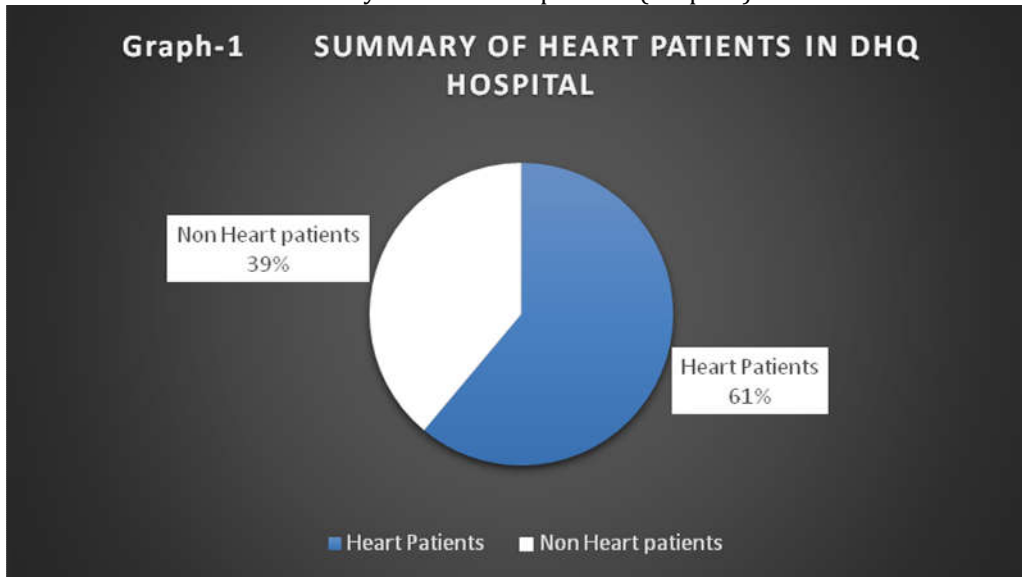
Keeping in view all facts of myocardial infraction, the current study was designed to investigate reasons of age related heart complication in respondents visited for their check-up in DHQ hospital district Karak.

**MATERIALS AND METHODS**

An observational study was made in cardiology section, Divisional Headquarters Hospital district Karak on May 2016. About 72 respondents with suspected heart complications were analyzed, there by cardiac specialist. ECG was performed for confirmation of their heart disorders. Respondents were asked questions related to study, all data were recorded on the questionnaire.

**RESULTS**

A total of 72 respondents were included in this study who came for their check-up in the cardiology section of DHQ hospital KDA district Karak. Out of them 61% of the respondents were confirmed Heart patients while rest of them were healthy i.e. non-heart patients (Graph-1)

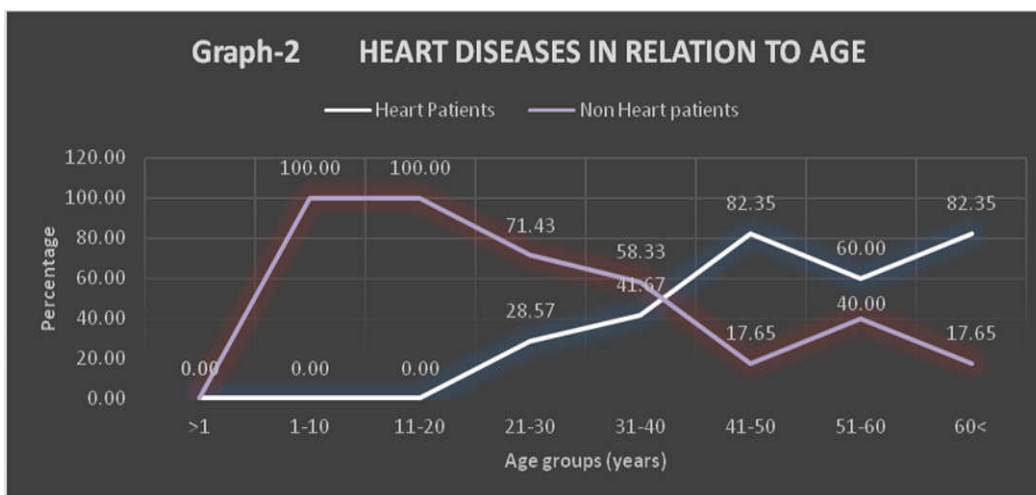


**Heart disease in relation to age of the respondents**

All of the 72 respondents were grouped into different age groups ranging from “less than 1 year” till “60 and above”. No respondent was observed with the complications of heart at age of <1. In the age group 1-10 years, 3/72 (4.17%) respondents were investigated in Cardiology section by ECG. All of them were confirmed as non-heart patients. In the age group 11-20 years, only one suspected patient was observed, but he was confirmed as non-heart patient. In the age group 21-30 years, a total of 7/72 (9.72%) patients were observed, out of them 2/7 (28.57%) were confirmed as Heart patients while 5/7 (71.43%) were non-heart patients. In the age group 31-40 years, a total of 12/72 (16.67%) suspected patients were observed, out of them 5/12 (41.67%) were confirmed as heart patients while 7/12 (58.33%) were non-heart patients. In the age group 41-50 years about 17/72 (23.61%) respondents were observed, out of them 14/17 (82.35%) were confirmed heart patients while 3/17 (17.65%) were non-heart patients. In the age group 60< a total of 17/72 (23.61%) respondents were observed, out of them 14/17(82.35%) were confirmed heart patients while 3/17 (17.65%) were non-heart patients (Table-1)(Graph-2).

**Table-1 Heart disease in relation to age of the respondents**

Age	Overall	Heart Patients	Non Heart patients
>1	0(0.00)	0(0.00)	0(0.00)
1-10	3(4.17)	0(0.00)	3(100.00)
11-20	1(1.39)	0(0.00)	1(100.00)
21-30	7(9.72)	2(28.57)	5(71.43)
31-40	12(16.67)	5(41.67)	7(58.33)
41-50	17(23.61)	14(82.35)	3(17.65)
51-60	15(20.83)	9(60.00)	6(40.00)
60<	17(23.61)	14(82.35)	3(17.65)
<b>Grand Total</b>	72	44(61.11)	28(38.89)

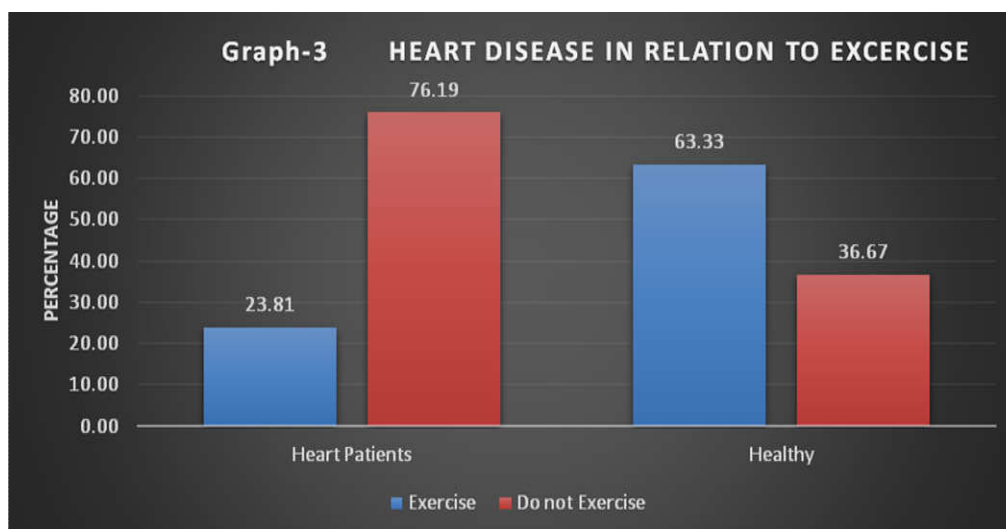


**Heart attacks in relation to Exercise**

A correlation of heart attack was observed with physical exercise, out of 42/72 (58.33%) Heart patients only 10/42 (23.81%) had an exercise in their daily routine while the rest of the 32/42 (76.19%) didn't do any exercise in daily routine. Out of 30/72 (41.67%) healthy respondents at large no. i.e.19/30 (63.33%) were involved in exercise while 11/30 (36.67%) did not. (Table-2) (Graph-3).

**Table-2 Heart attacks in relation to Exercise**

Respondents	Over All	Exercise	Do not Exercise
Heart Patients	42 (58.33)	10 (23.81)	32 (76.19)
Healthy Respondents	30 (41.67)	19 (63.33)	11 (36.67)
Grand Total	72	29 (40.28)	43 (59.72)

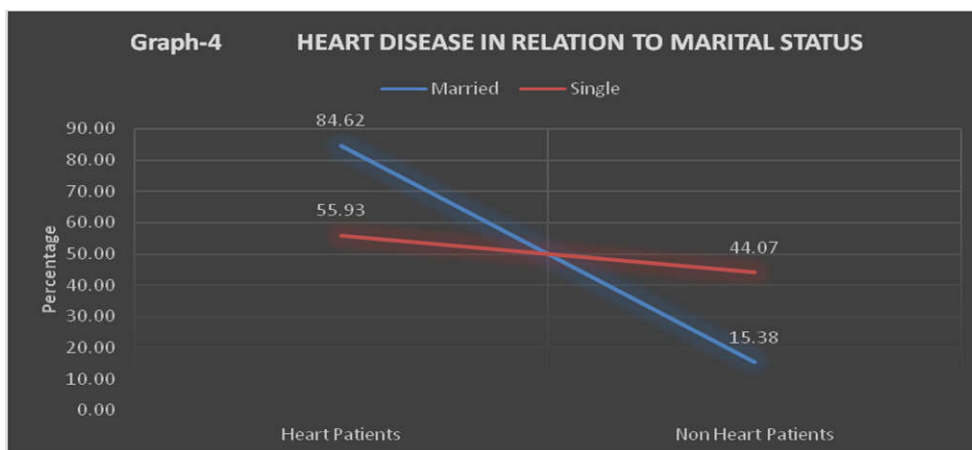


**Heart attack in relation to Marital status**

A total of 13/72 (18.06%) Married respondents were included in this study out of them 11/13 (84.62%) were heart patients while 2/13 (15.38%) were healthy respondents. Similarly, 59/72 (81.94%) respondents were single by marital status, out of them, 33/59 (55.93%) were heart patients while 26/59 (44.07%) were non heart patients.

**Table-3 Heart attack in relation to Marital status**

Marital Status	Overall	Heart Patient	Non Heart Patients
Married	13(18.06)	11(84.62)	2(15.38)
Single	59(81.94)	33(55.93)	26(44.07)
Grand Total	72	44(61.11)	28(38.89)

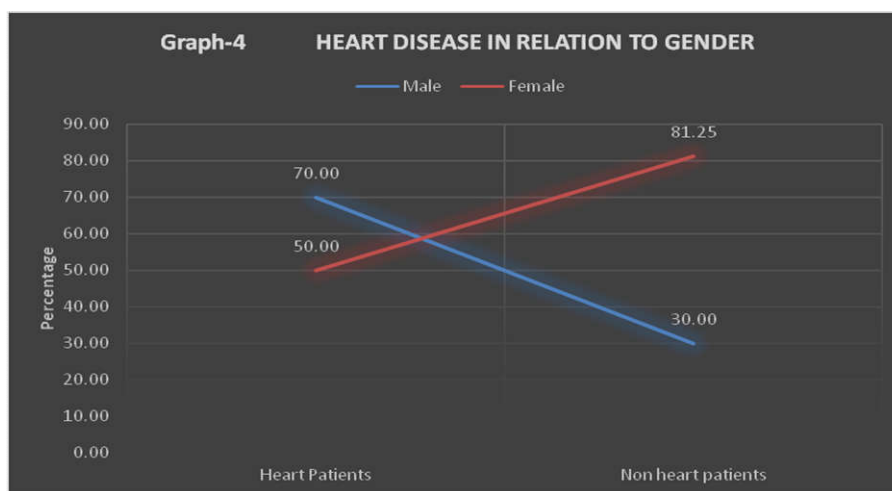


**Heart attacks in relation to gender**

About 40/72 (55.56%) male respondents were included in this study while 32/72 (44.44%) were female. Among male respondents 28/40 (70.00%) were found confirmed heart patients while among female 16/32 (50.00%) were found confirmed heart patients (Table-4)(Graph-5).

**Table-3 Heart attacks in relation to gender**

Gender	Overall	Heart Patients	Non heart patients
Male	40(55.56)	28(70.00)	12(30.00)
Female	32(44.44)	16(50.00)	26(81.25)
Grand Total	72	44(61.11)	28(38.89)

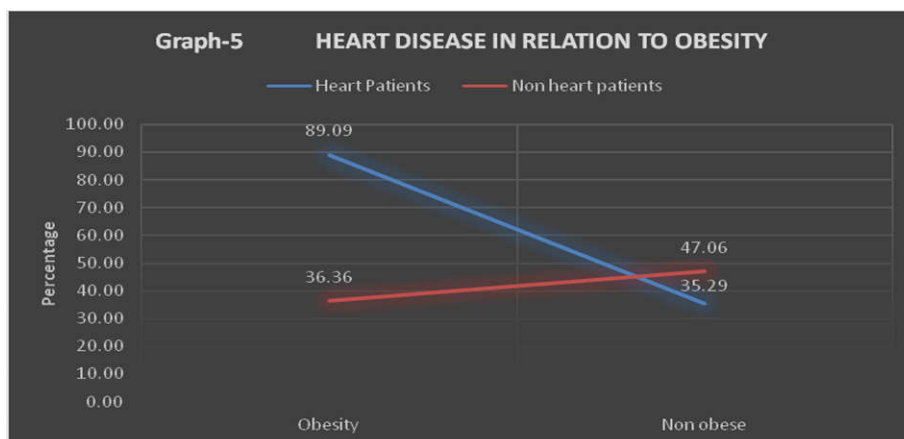


**Heart attacks in relation to obesity**

Obesity is considered to be a leading reason of a heart attack. Out of 72 respondents about 55/72 (76.39%) were overweight i.e. obese. Among obese respondents 49/55 (89.09%) were confirmed heart patients while 20/55 (36.36%) were healthy i.e. non-heart patients. Among non-obese respondents only 6/17 (35.29%) were heart patients.

**Table-4 Heart attacks in relation to obesity**

	Overall	Heart Patients	Non Heart patients
Obesity	55(76.39)	49(89.09)	20(36.36)
Non obese	17(23.61)	6(35.29)	8(47.06)
Grand Total	72	44(61.11)	28(38.89)



## DISCUSSIONS AND CONCLUSION

An elevated percentage of heart patients were observed in the age group 41-50 years of age as well as in 60 and above years of age i.e. 82.35%. While at least percentage was observed in the age group 21-30 years i.e.28.57%.Graham et al [8] explained that increasing is also a risk factor of heart attack, which is parallel to this study.No respondent with heart disease was observed below 20 years of age. This study reveals that increasing age increases the chances of heart attack. A high percentage (76.19%) of heart patients were those who didn't do any physical exercise in their daily routine. This reveals that physical exercise reduces that chances of heart attack, those who were involved in physical exercise, were healthy A high percentage (84.62%) of married respondents were suffering from myocardial infraction. The current study is in agreement with the study of Mehta et al [5] and Mendis et al [6] who suggested that lake of exercise is the leading risk factor of heart attack. This percentage was lower in respondents with single marital status, i.e. 55.93%. In this study male respondents were found at higher risk of heart diseases, i.e. 70.00% as compared to female respondents i.e. 50.00%, which is in agreement with the study of Wilson *et al* [7]. Obesity is considered to be a major reason of heart attack in in DHQ hospital Karak, about 89.09% of the obese respondents had heart disease. While a large percentage of non-obese respondents were found healthier.

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