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Research Article

**A RESEARCH STUDY ON EVALUATION OF ASSOCIATION
AMONGST DIETARY HABITS AND ISCHEMIC HEART
DISEASE (IHD)**¹Dr Fatima Akram, ²Tamia Khan, ³Amna Shahzad¹Bahawal Victoria Hospital Bahawalpur**Article Received:** October 2020**Accepted:** November 2020**Published:** December 2020**Abstract:**

Background: Ischemic heart disease (IHD) also known as atherosclerotic heart disease, coronary heart disease, or Coronary artery disease (CAD) is the most common type of heart disease and cause of heart attacks. The emerging profile of patients with AMI is that the majority are male, relatively younger as compared to Western population, have smoking and hypertension followed by diabetes as the major risk factors. Our study was aimed at assessing the relationship between ischemic heart disease (IHD) and dietary habits.

Objectives: To examine the relation between diet intake and risk of ischemic heart disease. To create awareness about dietary habits and its role in prevention of IHD among people.

Study design: descriptive cross sectional study.

Study area: DHQ hospital Gujranwala.

Study duration: one month.

Material and methods: 100 patients of ischemic heart disease were interviewed after taking consent using preformed structured questionnaires. All patients were selected randomly. Data will be analyzed using SPSS 24.

Results: 56% of patients were above 60 years of age. Males and females were in equal ratio. 84% of subjects were between 50 and 75 kg of weight. 60% were having disease for less than 5 years and 55% were not having any family history, 69% of patients don't exercise and about 55% consumes soft drinks.

Conclusions: People of advanced age (above 60 years) are more involved in ischemic heart diseases most patients have disease for less than 5 years, most patients suffering from IHD were using ghee in their cooking. The number of patients who don't exercise was significantly high in our subjects.

Key words: atherosclerotic, ischemic, descriptive cross sectional.

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INTRODUCTION:

Ischemic heart disease (IHD) also known as atherosclerotic heart disease, coronary heart disease, or Coronary artery disease (CAD) is the most common type of heart disease and cause of heart attacks. The disease is caused by plaque building up along the inner walls of the arteries of the heart, which narrows the arteries and reduces blood flow to the heart. [1, 2]

The review of the available data in Pakistan, supported by the present study in a cohort of 1400 patients from 17 CCUs in the country, the emerging profile of patients with AMI is that the majority are male, relatively younger as compared to Western population (about half of MI occur under the age of fifty Years) 3 have smoking and hypertension followed by diabetes as the major risk factors. The incidence of CAD has been halved in the west in past 3 years, but it has been doubled in the subcontinent.[3]. The only way to get away with this problem is to evaluate the risk factors and try to modify them. STEMI is the dominant type of ACS and the majority of patients are likely to have hypertension, IHD and diabetes in their families. Better control of risk factors and the awareness of preventive strategies are needed [4, 5, 6]. Ischemic heart disease is the leading cause of death worldwide. In Pakistan its incidence is 18/1000 [7]. In circulatory diseases cause over 100,000 deaths per year. In rapidly developing economies, income inequality and the double burden of under nutrition and over nutrition has brought about the coexistence of diseases⁵ associated

with both poverty and affluence. This type of study had not been conducted in Gujranwala. Lack of education, less awareness and also increase utilization of food with poor quality strongly suggested this type of study in Gujranwala. The purpose of this study is to build new pattern that may help community to improve their health.

MATERIALS AND METHODOLOGY:

Study design:

It was descriptive cross sectional study.

Study area:

DHQ hospital Gujranwala.

Study duration:

One month.

Study population:

Patients of IHD attending medical OPD of DHQ Hospital Gujranwala.

Sample size:

It calculated by using EPI-info software and our sample was 100 people.

Sampling technique:

Non-probability convenience sampling technique used.

Data collection:

Data collected through preformed structured questionnaires.

Data analysis:

Data analyzed through SPSS-24 computer software. Frequency tables formed.

RESULTS:**Table #1 : Frequency distribution of age of patient**

	Frequency	Percent
Valid 15-40 years	11	11.0
41-60 years	33	33.0
above 60 years	56	56.0
Total	100	100.0

Out of 100 subjects in our research, 11(11%) patients were between 15 and 40 years of age, 33(33%) were between 41 and 60 years of age and 56(56%) were above 60 years of age.

Table #2: Frequency distribution of sex of patient

	Frequency	Percent
Valid female	50	50.0
male	50	50.0
Total	100	100.0

Out of 100 subjects in our research, 50(50%) were male and 50(50%) were females.

Table #3 : Frequency distribution of occupation of patient

	Frequency	Percent
	18	18.0
	24	24.0
farmers/labourers	7	7.0
employee		
businessman	51	51.0
unemployed		
Valid Total	100	100.0

Out of 100 subjects in our research, 18(18%) were farmers/labourers, 24(24%) were employee, 7(7%) were businessmen and 51(51%) were unemployed.

Table #4 : Frequency distribution of weight of patient

	Frequency	Percent
	6	6.0
	84	84.0
upto 50 51-75 above	10	10.0
75		
Valid Total	100	100.0

Out of 100 subjects in our research, 6(6%) were upto 50 kg of weight, 84(84%) were between 51 and 75 kg and 10(10%) were above 75 kg of weight.

Table #5 : Frequency distribution of duration of disease

	Frequency	Percent
	60	60.0
	11	11.0
Less than 5 years		
5 years more than 5 years	29	29.0
Valid Total	100	100.0

Out of 100 subjects in our research, 60(60%) were having disease for less than 5 years, 11(11%) were having it for 5 years and 29(29%) were having disease for more than 5 years.

Table #6 : Frequency distribution of family history of patient

		Frequency	Percent
	yes	45	45.0
	No	55	55.0
Valid	Total	100	100.0

Out of 100 subjects in our research, 45(45%) were having positive family history and 55(55%) were having no family history.

Table #7 : Frequency distribution of preferred food

		Frequency	Percent
		91	91.0
	homemade fast food	9	9.0
Valid	Total	100	100.0

Out of 100 subjects in our research, 91(91%) prefer homemade food while 9(9%) prefer fast food.

Table #8 : Frequency distribution of type of food

		Frequency	Percent
		70	70.0
	vegatables meat	30	30.0
Valid	Total	100	100.0

Out of 100 subjects in our research, 70(70%) likes vegatables in their food while 30(30%) like meat.

Table #9 : Frequency distribution of number of meals

		Frequency	Percent
		49	49.0
	2 times more than 2 times	51	51.0
Valid	Total	100	100.0

Out of 100 subjects in our research, 49(49%) eats 2 times a day while 51(51%) eats more than 2 times a day.

Table #10: does pt. like spices

	Frequency	Percent
yes	34	34.0
No	66	66.0
Valid Total	100	100.0

Out of 100 subjects in our research, 34(34%) likes spices while 66(66%) don't.

Table #11: Frequency distribution of fat used in cooking

	Frequency	Percent
Oil	39	39.0
ghee	61	61.0
Valid Total	100	100.0

Out of 100 subjects in our research, 39(39%) use oil in cooking while 61(61%) uses ghee.

Table #12 : Frequency distribution of extra salt intake

	Frequency	Percent
yes	29	29.0
No	71	71.0
Valid Total	100	100.0

Out of 100 subjects in our research, 29(29%) uses extra salt while 71(71%) don't.

Table #13 : Frequency distribution of smoking status of pt.

	Frequency	Percent
yes	30	30.0
No	70	70.0
Valid Total	100	100.0

Out of 100 subjects in our research, 30(30%) smokes while 70(70%) don't.

Table #14 : Frequency distribution of no. of cigarettes smoked

		Frequency	Percent
No		70	70.0
Yes	less than 20 per day	16	16.0
	more than 20 per day	14	14.0
Total		100	100.0

Out of 100 subjects in our research, 70(70%) don't smoke, while 16(16%) smokes less than 20 cigarettes per day and 14(14%) smokes more than 20 cigarettes per day.

Table #15 : alcohol status of pt.

		Frequency	Percent
Valid	No	100	100.0

Table #16 : Frequency distribution of exercise habits of pt.

		Frequency	Percent
	yes	31	31.0
	No	69	69.0
Valid	Total	100	100.0

Out of 100 subjects in our research, 31(31%) do exercise while 69(69%) don't.

Table #17 : Frequency distribution of consumption of dietary fibres

		Frequency	Percent
	yes	67	67.0
	No	33	33.0
Valid	Total	100	100.0

Out of 100 subjects in our research, 67(67%) consumes dietary fibres while 33(33%) don't.

Table #18 : Frequency distribution of use of soft drinks by pt.

		Frequency	Percent
	yes	55	55.0
	No	45	45.0
Valid	Total	100	100.0

Table #19 : frequency of drinks

		Frequency	Percent
NO		45	45.0
Yes	daily	13	13.0
	weekly	15	15.0
	often	27	27.0
	Total	100	100.0

Out of 100 subjects in our research, 45(45%) don't consume soft drinks, while 13(13%) consume drinks daily, 15(15%) consume drinks on weekly basis and 27(27%) consumes drinks only often.

DISCUSSION:

Similarly according to research done by American Society for Clinical Nutrition in 2003. Vegetarian dietary practices have been associated with a reduction in incidence of IHD which is in contrary to our research as our research shows (Table #8) that most of patients with IHD were consuming vegetarian and fiber diet. Most probably this difference of results is due to involvement of other factors, like alcohol, which are not so prominent in our culture. In our research (Table #1) people of advanced age i.e. above 60 years of age are more(56%) involved in heart diseases which is in accordance to the results of research done by Dr. Muhammad Hafizullah in 2012 in Peshawar. It was found that patients of age 60 years and above with heart disease are rapidly increasing and their number will double upto 2025 and will triple up to 2050 globally. 13. Research is done by Dr. Shahid Abbas, in 2009 in all over Pakistan by collecting data from 2000 people, shows that in both urban and rural populations CHD was much more common in men compared to women in all age groups despite variation in other risk factors¹⁴ which is in contrary to our results (Table #2) which shows that among total(100) patients half were males(50) and half were females(50). This difference is probably due to same dietary habits and physical activities if both genders in our research area [8]. We found that 70% of patients of ischemic heart disease were nonsmokers (Table #13), which shows that smoking was not actually involved as an etiology of the disease but research done by Dr. Farhana Shahzad in 2007-09 in Lahore shows results contrary to our research. It says that the number of individuals with the history of smoking was higher among the test group (27%) than the control group (15.5%) [9]. A significant difference in the frequency of smoking between control and test groups was observed¹⁵. The research done by Dr. Jimm I

Mann in 2000 in New Zealand shows that diet rich in vegetables prevents the occurrence of IHD it says that studies comparing mortality experience in vegetarians with that in groups of non-vegetarians with a shared interest in healthy living or a similar social/religious background. Results shows the significant reduction in IHD death rate ratios in vegetarians compared to meat eaters in both men and women¹⁶, but our research (Table #8) shows contrary results as 70% of patients of IHD were consuming vegetables in their diet as a major constituent.

CONCLUSION:

Identifying novel risk factors for IHD and understanding the role, if any, of dietary components on these markers will help in the development of therapeutic and preventive measures in the future. Our research shows that: 56% of patients were above 60 years of age which indicates people of advanced age (above 60 years). are more involved in ischemic heart diseases than younger ones. More over 60% of patients have disease for less than 5 years which indicates increased incidence over past few years. 61% patients suffering from IHD were using ghee in their cooking. The number of patients who don't exercise was significantly high (i.e. 69%) in our subjects. 55% of patients were using soft drinks.

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