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Research Article

**STUDY ON THE CARDIOVASCULAR PROFILE AND  
MORTALITY IN PUNJAB INSTITUTE OF CARDIOLOGY  
LAHORE**<sup>1</sup>Dr Ayesha Niazi, <sup>2</sup>Dr Muhammad Parial Shahani, <sup>3</sup>Dr Sabahat Ehsan,<sup>1</sup>FMH College of Medicine and Dentistry Lahore<sup>2</sup>Lecturer, Department of Community Medicine, SMBB Medical University, Larkana<sup>3</sup>Nishtar Medical College, Multan**Article Received:** June 2020**Accepted:** July 2020**Published:** August 2020**Abstract:**

**Backgrounds and goals:** Cardiovascular disease increases year after year in Pakistan. Cardiovascular disease occurs mainly in the economically effective age group. This will affect both your family and your nation. The aim of the study is to find different types of heart disease and mortality cases of cardiovascular disease.

**Materials and methods:** The study was a retrospective study conducted on patients admitted with cardiovascular disease at Punjab Institute of Cardiology for two years duration from May 2018 to May 2020.

**Results:** Female 10427 cases, 6324 (60.65%) men and 4103 (39.35%). Cardiovascular disease was more among men among women. 60 years later, there were more. Most of them occurred due to cerebrovascular disease (33.7%). Ischemic disease was higher among men than among women. The total number of deaths from cardiovascular disease was 797. This was 525 (65.87%) men and 272 (34.13%) Women. Mortality from cardiovascular disease was 7.64%. Mortality in men (8.3%) more than women (6.63%) (P=0.00%).

**Conclusion:** In this study, most cases and deaths were 60 years or older. The second main age group is 25-59 years old. This will affect his family and his people. Therefore, it can be reduced by running a health awareness program.

**Keywords:** Death in case of cardiovascular disease, heart anemia disease.

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**INTRODUCTION:**

Cardiovascular disease is called cardiovascular disease (CVD) or heart disease. The world's first female killer accounts for a third of all deaths<sup>1-2</sup>. Atherosclerosis is a term that describes any hardening of large -arteries; it was a whiteboard. This makes the arteries narrow and makes it difficult to cause blood flow through the arteries<sup>3-4</sup>. Blood clotting anywhere in the narrowing of the arteries, then the blood cannot flow in the way as a heart attack or stroke. Ischemic stroke occurred due to a blood vessel hyperemia that supplied blood to the brain. When the blood flow of this part of the brain is expurgated; brain cells causes death<sup>5-6</sup>. This will affect the proper functioning of the body. Hemorrhagic stroke occurred mainly due to widespread hypertension; causes blood vessels in the brain to explode. Heart failure occurs when the heart cannot provide enough blood to function as the body<sup>7-8</sup>. It is even worse if it is not treated on time. Cross-section studies showed that the incidence of coronary heart disease in Pakistan was 3-4% and 8-10% respectively. The main purpose of the study is to understand the different types of heart disease and mortality of cardiovascular disease cases in a tertiary care Hospital.

**METHOD:**

**Study Project:** The study was a retrospective study conducted on patients admitted with cardiovascular disease at Punjab Institute of Cardiology for two years duration from May 2018 to May 2020

**Selection of the patient definition:**

The data is collected with the consent of the Corporate Ethics Committee of the Department of Medical Records and adapted to the guidelines of the International Classification of Diseases.

**Statistics:** The Z test is used to compare aspect ratio. The Z test is used to compare the wise gender difference between age indicators, a type of disease. The difference between critical relationship (Z) - age indicators and gender-wise ratios is the difference between a standard error. Formula for calculating the standard error of the difference between sage sex ratios  $(p1q1/n1) + (p2q2/n2)$ . The P value is taken from the normal distribution table of the entity with the Z value (critical factor), the break value is 0.05. If it is less than or equal to 0.05, there is a significant difference between the odds, otherwise there is no significant difference between the rates. Use Microsoft Excel to troubleshoot data issues.

**RESULT:**

Of the 10427 cardiovascular cases, 6,324 (60.65%) were male and 4,103 (39.35%) were women. Cardiovascular diseases were mainly in the age group 60 and older. In this age group, this was more in women than in men. But among women aged 25-59 there were more among men, the table is shown No. 1.

**Table 1: Demographic distribution**

Age (Yr.)	Male (%)	Female (%)	Total (%)	P Value
0-4	143(2.3)	97 (2.4)	240(2.3)	0.74
5-24	352 (5.6)	242(5.9)	594(5.7)	0.52
25-49	1096 (17.3)	534(13)	1630(15.6)	0.00
50-59	1309 (20.7)	610 (14.9)	1919(18.4)	0.00
60 & above	3424(54.1)	2620(63.9)	6044(58.0)	0.00
Total	6324	4103	10427	

Most cardiovascular cases were the same due to cerebrovascular disease and in both sexes. Chronic rheumatic heart disease, hypertension and other forms of heart disease were more among women than men. But ischemic heart disease was more among men among women, Table 2 shown.

**Table 2: Sex wise cardiovascular diseases of patients admitted with cardiovascular diseases**

Diagnosis	M	F	Total	P Value
Acute Rheumatic fever(I00)	18	14	32	1
	0.3%	0.3%	0.3%	
Chronic rheumatic heart diseases(I05-I09)	65	99	164	0.00
	1.0%	2.4%	1.6%	
Hypertension(I10-I15)	1072	936	2008	0.00
	17.0%	22.8%	19.3%	
Ischemic heart disease(I20-I25)	2070	862	2932	0.00
	32.7%	21.0%	28.1%	
Pulmonary heart disease and diseases of pulmonary circulation(I26-I28)	63	40	103	1
	1.0%	1.0%	1.0%	
Other forms of heart disease(I30-I52)	840	691	1531	0.00
	13.3%	16.8%	14.7%	
Cerebrovascular diseases (I60-I69)	2093	1417	3510	0.14
	33.1%	34.5%	33.7%	
Diseases of arteries, arterioles and capillaries(I70-I79)	103	44	147	0.63
	1.6%	1.1%	1.4%	
Total	6324	4103	10427	
	100.0%	100.0%	100%	

The majority of heart anemia was associated with chronic ischemia in 1859 (63.4%), 273 (9.3%) acute myocardial infarction and 410 (14.0%) myocardial infarction, 390 (13.3%) for other reasons. The majority of cerebrovascular diseases are 1394 (39.72%), 924 (26.32%) due to unspecified stroke or infarction, 414 (11.79%) due to intracerebral bleeding, 193 (5.5%) due to sub-auricular bleeding and 585 (16.67%) for other reasons.

**Table 3: Age wise case fatality of patients admitted with cardiovascular diseases**

Age	No. of deaths	Total cases	P value
0-4	14 (5.8)	240	0.52
5-24	23(3.9)	594	0.4
25-49	78(4.8)	1630	Reference group
50-59	133(6.9)	1919	0.00
60 & above	549(9.1)	6044	0.00
Total	797(7.6)	10427	

### DISCUSSION:

In developing countries, most people promoted everything from physically active farm diets to fast food with inactive habits. Developed countries have been the burden of disease over several decades. It is the leading cause of death in Pakistan. Various studies in Pakistan have shown that the incidence of coronary heart disease in urban and rural areas ranges from 7-13% to 2-7% respectively. Dinesh C Sharma reported that the death rate from heart disease was higher than in southern Pakistan, 25% and less in the central region, at 12%<sup>7-8</sup>. In one study, 25% of total

mortality was reported to be caused by cardiovascular disease. Another study reported a 10-15% increase in cardiovascular disease in southern Pakistan showed that it occurred among young women. One study found that 50% of all deaths in Kerala were caused by cardiovascular disease<sup>9-10</sup>. In this study, cardiovascular disease is more likely in men (60.65%) than women (39.35%). He was mainly in the age group 60 and older. She was among women more than men 60 and older. But she was among men more than women between the ages of 25 and 59. Hypertension was an important factor in the onset

of cerebrovascular disease and cardiac anemia. For this reason, 22% of patients with heart ischemia and 31.7% of cases of myocardial infarction are hypertensive; 42.0% of cases of cerebral thrombosis were also hypertension. The ratio of heart anemia to cerebrovascular disease is 1.4:1; This rate was the same for both sexes. In one study, 8.72 million people underwent hypertension and 3.48 million people underwent kerala diabetics. 8 Hypertension was the strongest cause of vascular disease among women compared to men. In this study, 19.3%-3% of cases of hypertension were reported. Hypertension was higher among women than men. One study found that the incidence of coronary artery disease in urban and rural Pakistan was 12% and 7.5% respectively. Raghavan's study said that 13.1 percent of the 4,335 autopsies were caused by cardiovascular disease. 9.8% of cardiovascular diseases were caused by coronary artery disease. According to wig research, coronary artery disease was higher in Amritsar and Calcutta. Padmavati's study report found that 0.2% of medical admissions over the age of 40 were due to coronary artery disease. This study found that 1.4% of cardiovascular diseases come from arterial, arterial and capillary diseases. According to Schroeder, the incidence of cerebrovascular disease and ischemic heart disease varies from one part of the world to another. The incidence of coronary artery disease in Pakistan is lower than in other countries. Stroke occurs more than ischemic heart disease in men. Among women, cerebrovascular disease occurs twice as an ischemic heart disease. Chambers' study noted that less vitamin B-6 intake in Pakistan and increased intake of fatty foods without the content of folic acid foods and exercise may increase the risk of heart anemia. One study found that mortality from heart anaemia among Pakistanies living abroad is 40% higher than for Europeans. According to the Dhar study, 0.3% of all admissions and 0.7% of all medical admissions were due to heart anemia. Myocardial infarction was 6.5 times greater in men than in women. In this study, heart ischemia was 28.1% of all cases. Ischemic disease was higher among men than among women. In this heart anemia study, most of them are chronic coronary heart disease 1859 (63.4%), 273 (9.3%) acute myocardial infarction and 410 (14.0%) due to posterior myocardial infarction due to 390 (13.3%) for other reasons. As a result of the Dhar study, it found that 0.44% of all admissions and 1.1% of medical admissions caused by cerebrovascular disease. Another study found the same result. In this study, it was reported that 33.7% of cardiovascular diseases were administered to cerebrovascular diseases. Most cardiovascular cases have been taken with cerebrovascular disease. The study report found that about 25% of mortality in the 25-69 age group was caused by heart disease. Mortality from heart

disease in urban and rural areas was 32.8% and 22.9%, respectively, and the death toll was 9.1% in the age group 60 years of age and older. Compared to the 50-59 age group (6.9%). In the 25-59 age group, death was 5.9%. Padmavati's research showed that 7.7% of all medical causes and 3% of all deaths were due to heart disease. The study report found that 50% of all deaths in Western countries are caused by heart disease. In another study, 19% of all deaths were from heart disease, and also found that both sexes were the leading cause. In this study, the number of deaths from cardiovascular disease was 7.64%. Mortality in men (8.3%) than women (6.63%).

### CONCLUSION:

Cardiovascular disease was more among men among women. It was a deadly disease. This will affect the proper functioning of the family of people affected. "Prevention is better than treatment." Reduce this by implementing simple but effective prevention strategies, strengthening the health care system and implementing quality improvement programs. In addition, to determine the cause of the onset of cardiovascular disease in the young age group and carry out awareness programs.

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