

RESEARCH ARTICLE

THE PREVALENCE OF ANEMIA IN THE PATIENTS WITH MYOCARDIAL INFARCTION (MI)

Nasir Ali¹, Owais Ahmed Wani², Parvez Mohi Ud Din Dar³ and Suhail Masood Khan³

- 1. Consultant cardiology, SSH, GMC Jammu, Jammu and Kashmir, India.
- 2. DrNB cardiology, SSH, GMC Jammu, Jammu and Kashmir, India.
- 3. Assistant professor and head of Trauma and Emergency Medicine, All India Institute of Medical Sciences, Vijaypur, Jammu, Jammu and Kashmir, India.
- 4. DrNB Urology, SSH, GMC Jammu, Jammu and Kashmir, India.
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Abstract

Introduction & Objective: Ischemia heart disease (IHD) is the most common cause of death in several communities. Atherosclerosis is the most prevalent cause of IHD, and it is influenced by a number of etiologic variables including high blood pressure, diabetes, smoking, and hyperlipidemia. Anemia is thought to be another cause of loss and morbidity in patients with IHD. As a result, the goal of the current study was to find out how common anaemia was in individuals who survived and died from a myocardial infarction.

Materials and Methods: The subjects of this case-control study were patients who had a myocardial infarction and were hospitalised. The patients were separated into two groups: those who died and those who survived a myocardial infarction, and the prevalence of anaemia was assessed using haemoglobin levels in each of the 100 subjects. In addition, the demographic features, ejection fraction, and underlying medical problems of the patients were considered.

Results: Anemia affected 20 patients (20%) of the 100 patients investigated, and 5 (25%) of the anaemic patients died. After MI, 30 % of the deceased patients were weak, while 5 percent of the survivors were anaemic. In addition, anaemia was higher in the former patient group than in the sustained group in all age and sex groups. The prevalence of anaemia was significantly higher in women than in males (P 0.05).

ConclusionAccording to the findings, the prevalence of anaemia is statistically different in the former patient group after MI than in the group who survived after MI.

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Introduction:-

Ischemic heart disease (IHD) is a condition in which blood and oxygen do not reach the myocardial to the level that the heart requires, causing the oxygen demand and consumption in the myocardium to become unbalanced. This can be caused by the heart muscle's increased demand for oxygen, resulting in a reduction in blood flow to the myocardial and ischemia [1].

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Corresponding Author:- Owais Ahmed Wani Address:- DrNB Cardiology, SSH , GMC Jammu. Mortality is one of the most common complications of ischemic heart disease around the world. Because of the high frequency of IHD, doctors and researchers are paying more attention to the disease, as well as ways to treat and prevent it. Diabetes, smoking, a high-calorie diet, high blood pressure, and living in a city are just a few of the risk factors considered in the context of the formation of IHD [1].

Anemia is another component that has gotten a lot of attention in recent years, with a lot of study being done to figure out how it affects the prognosis of patients with MI. IHD patients who are also anaemic are more likely to suffer serious repercussions from ischemia events, according to recent research. Anemia was shown to be more frequent in situations when the cause of death was MI [2].

In India, anemia has a relatively high prevalence. Indian women are more anemic than others, yet less attention is paid to their treatment.

Anemia has been shown in certain studies to increase mortality by up to 12% in five years and up to 44% by the age of 15. The same study discovered a link between anaemia and mortality from my disease. According to a study by Mahmudi et al., Heart Center instructors, 17.9% of IHD patients with low haemoglobin levels identical to those of anaemia had a myocardial infarction, while only 8.8% of IHD patients with standard or high haemoglobin levels had a myocardial infarction [3].

Further research is needed into the possible impacts of anaemia on mortality caused by MI, and in the case of high proof, anaemia therapy should be offered as the primary treatment of instances via IHD in order to avoid serious complications caused by it. Given the importance of the above-mentioned data, the current study examined the occurrence of anaemia in patients who survived and died from a myocardial infarction. The association between myocardial infarction and mortality is not linear [4,5,6].

Materials and Methods:-

The current study is a case-control study, and the participants were patients who had a myocardial infarction and were admitted to the hospital's CCU within a year (2019-2020). A total of 100 subjects were chosen using a statistical method and a random sample of the statistical community.

After completing the necessary studies, the patients were divided into two 50-person groups: former (case group) and survivors (survivor group) (control). They were also picked based on ethical considerations, confidentiality, and the following parameters, including ejection fraction (EF LV), underlying illnesses, demographic criteria, and medical records.

The anemia measurement in the study was determined by the level of hemoglobin 12 gr/ dl in males and 11 gr/ dl in females, and the type was not specified in the survey.

MI: myocardial necrosis following ischemia with clinical symptoms of angina that was defined in the present study with ECG changes in the form of ST segment elevation associated with increased CPU-MB greater than 24 gr/ dl in the blood.

Patients who survived after therapy with a primary diagnosis of complications from a MI. Patients having a primary diagnosis of MI who died from causes other than MI complications are included in the death rule. Cases of MI who died as a result of other MI complications were not included in this study.

The data was examined with the use of a questionnaire created with SPSS 16 software, as well as descriptive statistics indicators and the chi-square test.

Results and Discussion:-

The findings revealed that of the 100 patients studied, 28 (28%) were females and 72 (72%) were men, with 90% surviving and 10% dying. According to the study's criteria, 20 individuals (20%) were anemic, while the remaining 80 patients (80%) were not .Anemia was present in 15 females and 5 men

The youngest victim in the current study was 35 years old, while the oldest sufferer was 85 years old. Within the standard deviation, the average age of the cases was 65.50.

Anemia affected 20 patients (20%) of the 100 patients investigated, and 5 (25%) of the anaemic patients died. After MI, 30 % of the deceased patients were weak, while 5 percent of the survivors were anaemic. In addition, anaemia was higher in the former patient group than in the sustained group in all age and sex groups. The prevalence of anaemia was significantly higher in women than in males (P 0.05).[7]. In another study conducted by Silveira, the prevalence of anaemia in MI cases was estimated to be around 23%. According to the same poll, these patients' anaemia should be treated seriously [8]. These data suggested that the prevalence of anaemia in the current study was lower than in others. The increased prevalence of anaemia in MI cases.

In the research performed by Madhavan et al., anemia significantly increased mortality up to 12% within five years, and 24% within a decade, and 44% within 15 years [4]. Although the current study did not consider the prognosis of patients during the years following MI, at first glance, a greater proportion of anemic patients with MI died.

According to Mahmoudi et alstudy, .'s 17.9% of patients with IHD with anaemia died, whereas only 8.8% of patients with IHD who had an average haemoglobin level perished [3].

In a research by Zeidman et al., anaemic patients with MI had a 13 percent mortality rate, while non-anemic patients had a 4 percent mortality rate [9]. Anemia was found in 31.7 percent of the MI patients who died in the current investigation, although only 3.6 percent of the MI patients who survived were anaemic. Anemia can have a major impact on the prognosis of patients with MI, according to research in this area. The majority of studies have recommended that patients' anaemia be examined and treated at the same time [9,10,11].

Conclusion:-

According to the findings of the current investigation, the anaemia prevalence in the group who died after MI differed statistically significantly from the anaemia prevalence in the group who lived after MI. Given the higher prevalence of anaemia in the deceased, it is also recommended that patients with IHD be tested for anaemia and those who are anaemic be treated to lower death and morbidity rates.

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