

52nd CARDIOCON 2023: ABSTRACT**RIGHT VENTRICULAR INFARCTION IN PATIENTS WITH INFERIOR WALL MYOCARDIAL INFARCTION AND ITS ASSOCIATION WITH VARIOUS RISK FACTORS****Hafeez Orakzai¹, Danish Ahmed¹, Tashfeen¹, Nazeef¹**¹Hayatabad Medical Complex, Peshawar, Pakistan

Objectives: This study aimed to evaluate the occurrence of right ventricular infarction among patients with inferior wall MI and the risk factors leading to involvement of the right ventricle.

Methodology: A prospective study was conducted at Hayatabad Medical complex in Peshawar from December 2022 to July 2023, involving 114 participants aged 40-80 years with inferior wall myocardial infarction. The study confirmed MI by chest pain, ECG changes, and elevated cardiac enzymes, while right ventricular infarction was assessed through specific ECG leads. Patients with specific medical histories were excluded. Ethical approval was obtained to ensure patient rights and data confidentiality.

Results: Out of 114 patients with inferior wall myocardial infarction (MI), 42 (36.8%) had right ventricular infarction (RVI). RVI and Age: Most participants (59.6%) were aged 40 to 60 years, and the rest (40.4%) were aged 61 to 80 years. RVI occurrence was not significantly associated with age ($p = 0.707$). RVI and Gender: Among the participants, 61.4% were male, and 38.6% were female. RVI was significantly more common in males (45.7%) compared to females (22.7%) with a p-value of 0.013.

Hypertension was present in 40.3% of participants, and RVI was significantly associated with hypertension ($p < 0.001$). RVI occurred in 65.2% of hypertensive patients compared to 17.6% of non-hypertensive patients. *Smoking:* Smoking was reported by 26.3% of participants, and RVI was significantly more prevalent among smokers (56.7%) compared to non-smokers (29.8%) with a p-value of 0.008. *Diabetes Mellitus:* Diabetes was present in 21.0% of patients, and RVI was significantly associated with diabetes ($p = 0.014$). RVI occurred in 58.3% of diabetic patients versus 31.1% in non-diabetics. *Dyslipidemias:* Dyslipidemia was found in 12.3% of patients, but the association with RVI was not statistically significant ($p = 0.092$). RVI occurred in 57.1% of dyslipidemic patients and 34.0% of non-dyslipidemic patients.

Conclusion: The occurrence of RVI is seen in around 33% of instances in conjunction with IWMI. The identification of risk factors is crucial in the assessment of individuals with chronic heart disease. The use of this straightforward method has the potential to streamline the process of identifying and categorizing individuals who may be at a higher risk of developing right ventricular infarction in the context of inferior wall myocardial infarction. The risk variables included in this study consist of hypertension, diabetes mellitus, and smoking. Among these three options, people with hypertension have the greatest likelihood of experiencing RVI. Therefore, it may be inferred that this factor is among the most significant risk factors for respiratory viral infections in individuals with impaired immune systems. The use of timely management strategies for the aforementioned risk factors will lead to a decrease in the occurrence of RVI and therefore mitigate the related complications.

Keywords: Ischemic Heart Disease, Right Ventricular, Inferior Wall Myocardial Infarction

Citation: Orakzai H, Ahmed D, Tashfeen T, Nazeef N. Right Ventricular Infarction in Patients with Inferior Wall Myocardial Infarction and its Association with Various Risk Factors. Pak Heart J. 2023;56(Supplement_2):S13. https://doi.org/10.47144/phj.v56iSupplement_2.2685

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