Title: Unexplained tachycardia in heart failure: prevalence, patterns and clinical outcomes. Insights from the Kashmiri population, Mirpur AJK.

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Objective:

The aim of this study is to estimate the prevalence of unexplained tachycardia among HF patients in the Kashmiri population inhabiting Mirpur, AJK, and its relation to clinical outcomes.

Methods:

In this cross-sectional study, 200 patients with HF were recruited from January to June 2023 from a cardiology centre in Mirpur, AJK, with a mean age of 62 ± 12 years and 55% of them being male. For this study, unexplained tachycardia was defined as a resting heart rate of >100 bpm for which no identifiable causes such as fever, anaemia, or hyperthyroidism could be identified. All the patients underwent echocardiography, electrocardiography, and laboratory tests. Outcomes analysed included hospitalisation frequency, LVEF, and 6-month mortality.

Results:

Tachycardia of an unexplained origin was seen among 25% of patients (n=50). Of them, 70% had sinus tachycardia, while 30% had nonsustained ventricular tachycardia. Patients with unexplained tachycardia had a significantly higher rate of hospitalisation compared with the rest (52% versus 28%; p = 0.01) and also had higher 6-month mortality (16% versus 8%; p = 0.03). LVEF was significantly lower in the tachycardia group as compared to the rest: 38 ± 5% versus 42 ± 6%, p = 0.02.

Conclusion:

A good number of HF patients in Mirpur, AJK, are presented with unexplained tachycardia, though it promotes adverse clinical outcomes, including increased hospitalisation and mortality.

These findings also point out the need for early identification and management corresponding to this high-risk group.