Frequency of Atrial Fibrillation in Patients Presenting with Decompensated Heart Failure

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Abstract

Background
Atrial fibrillation (AF) is a common concern in patients with heart disease, especially those with acute decompensated heart failure (ADHF). We conducted a cross-sectional study to determine the frequency of AF and associated risk factors among patients with ADHF at a tertiary care hospital in Peshawar, Pakistan.

Methods
We conducted a cross-sectional analytical study of hospitalized patients with ADHF treated in a tertiary care hospital in Peshawar, Pakistan, from June 5 to October 30, 2021. The study's primary outcome was the proportion of patients with ADHF who had AF, and our secondary outcome was examining the risk factors for AF. The College of Physicians and Surgeons Pakistan provided ethical approval of the study design. Data were analyzed using IBM SPSS Statistics for Windows version 24.0 (IBM Corp., Armonk, NY, USA). We applied the chi-square test to compare the proportion of AF concerning risk factors (i.e., comorbidities).

Results
One hundred ninety-four patients with ADHF were included in the study; 54.6% were male and 45.4% female. Most (56.7%) were older than 60, and 38.1% were aged 40-60. The prevalence of AF was 38.1%. Diabetes, hypertension, previous stroke, myocardial infarction (MI), and chronic obstructive pulmonary disease (COPD) were the most common comorbidities. All patients with ADHF with AF also had MI and hypertension. Patients of known coronary artery disease (CAD) but without MI, previous percutaneous coronary intervention (PCI), or coronary artery bypass graft (CABG) surgery were less associated with AF than other comorbidities.

Conclusions

We conducted this study to determine the incidence of AF among patients with ADHF. AF occurs in a significant amount of patients with ADHF, and the risk factors associated with AF in these patients include hypertension, history of MI, diabetes, and COPD. Healthcare professionals should screen patients with ADHF for AF, especially those with common risk factors.

Recent Publications

1. Kiuchi K, Shirakabe A, Kobayashi N, et al.: Prognostic impact of new-onset atrial fibrillation associated with worsening heart failure in aging patients with severely decompensated acute heart failure. Int J Cardiol. 2020, 302:88-94. 10.1016/j.ijcard.2019.09.020
2. Iwahashi N, Takahashi H, Abe T, et al.: Urgent control of rapid atrial fibrillation by landiolol in patients with acute decompensated heart failure with severely reduced ejection fraction. Circ Rep. 2019, 1:422-30. 10.1253/circrep.CR-19-0076
3. Mendes Fde S, Atié J, Garcia MI, Gripp Ede A, Sousa AS, Feijó LA, Xavier SS: Atrial fibrillation in decompensated heart failure: associated factors and in-hospital outcome. Arq Bras Cardiol. 2014, 103:315-22. 10.5935/abc.20140123
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5. Kocabaş U, Sinan ÜY, Aruğaslan E, et al.: Clinical characteristics and in-hospital outcomes of acute decompensated heart failure patients with and without atrial fibrillation. Anatol J Cardiol. 2020, 23:260-7. 10.14744/AnatolJCardiol.2020.94884



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