

Atrial fibrillation in patients with mitral regurgitation

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KEYWORDS: atrial fibrillation, mitral regurgitation, coronary artery disease.

CITATION: *Cardiol Croat.* 2018;13(5-6):186. | <https://doi.org/10.15836/ccar2018.186>

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Background: Mitral regurgitation (MR) is often complicated with atrial fibrillation (AF), with estimated rate of 5% per year. Patients with both MR and AF have higher risk of cardiac events¹. The aim of our study was to investigate how many of patients with MR have AF, and is there any correlation with the severity of MR and AF occurrence.

Patients and Methods: Retrospective study was conducted to investigate frequency of AF in patients with MR. A total number of 686 patients were included, 45% were female. The prevalence of arterial hypertension, diabetes mellitus, hyperlipidemia were similar between men and women. When compared to women, men smoke more frequently. On the other hand, women had higher serum uric acid levels.

Results: Atrial fibrillation was found in 44% of patients with MR. Almost half of women (49.5%) and 39.5% of men with MR had AF. Paroxysmal AF was present in 38.7%, and permanent in 27.4% of patients with MR. 45% of patients had mild, 36.4% had moderate, and 18.6% had severe MR. 25.5% of men and 18.3% of women had concomitant AF and severe MR. Mitral regurgitation was associated with AF and coronary artery disease in 16.2% of cases, with 53% having mild MR.

Conclusion: Atrial fibrillation can often be found in patients with mitral regurgitation. Mild MR was more often associated with AF occurrence, as well as in patients with both AF and CAD.

RECEIVED:
April 30, 2018

ACCEPTED:
May 10, 2018



LITERATURE

1. Herrmann HC, Gertz ZM, Silvestry FE, Wiegers SE, Woo YJ, Hermlinger J, et al. Effects of atrial fibrillation on treatment of mitral regurgitation in the EVEREST II (Endovascular Valve Edge-to-Edge Repair Study) randomized trial. *J Am Coll Cardiol.* 2012 Apr 3;59(14):1312-9. <https://doi.org/10.1016/j.jacc.2011.12.023>