**CLINICALLY UNRECOGNIZED MITRAL REGURGITATION IS PREVALENT IN LONE ATRIAL FIBRILLATION AND MAY BE ETIOLOGICALLY RELATED TO DEVELOPMENT OF LONE ATRIAL FIBRILLATION**

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Background: The prevalence of mitral regurgitation (MR) in lone atrial fibrillation (AF) is not known. We hypothesized that clinically unrecognized MR may be prevalent phenomenon associated with “lone” AF.

Methods: We studied the prevalence and severity of mitral regurgitation by transesophageal echocardiography in patients with “lone” atrial fibrillation (AF) as compared to a matched cohort of patients in normal sinus rhythm (NSR) undergoing transesophageal echocardiography for other indications besides recognized valvular heart disease.

Results: A total of 157 subjects (57 in the AF group and 100 in the NSR group) with structurally normal cardiac valves were included in the study. In the AF group, moderate MR or more was noted in 66% of the patients, mild MR in 18%, trace or no MR in 16%. In the control group, moderate MR was noted in 6% of patients, mild MR 31%, trace or no MR in 63 % of patients. Moderate MR or greater was significantly more prevalent in the AF group compared to the NSR group (66% vs 6%, p<0.0001).

Conclusion: Clinically unrecognized moderate MR appears to be prevalent in patients with “lone” AF. Whether moderate unrecognized mitral regurgitation may be an etiologic factor related to development of “lone” AF or develops with atrial fibrillation needs to be studied in long-term longitudinal studies.