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Editorial

## Nonvalvular atrial fibrillation in India—time to pause, think, and change!



Atrial fibrillation (AF) is the commonest arrhythmia seen in clinical practice and is of major concern due to increased mortality and risk of antecedent thromboembolism and stroke. In this context, this Indian substudy of the GARFIELD-AF registry is very timely.<sup>1</sup> This is the first time a true nonvalvular AF registry results have been reported in India; previous registries had a large number of patients with rheumatic heart disease. The double burden of rheumatic and nonvalvular AF seems unique to India and other emerging nations. However, the improving health status leading to increasing longevity, rising prevalence of hypertension and diabetes, and declining incidence of rheumatic fever will see a change in AF epidemiology in India, with increasing number of patients presenting with nonvalvular AF in our country.

The present study is the analysis of risk profiles and 1-year outcomes of patients with newly diagnosed AF in the Indian subset of the GARFIELD-AF registry.<sup>1</sup> This study brings out some glaring differences in the practices of managing patients with nonvalvular AF in India compared with other countries which are of grave concern.

- 1 The most commonly prescribed antithrombotic drug for stroke prevention, regardless of CHA<sub>2</sub>D S<sub>2</sub>-VASc score, was aspirin alone in 40% patients, whereas 20% of the patients had no antiplatelet or antithrombotic therapy. The use of newer oral anticoagulants (NOACs) was as poor as 6%. This is of major concern because aspirin has limited role in stroke prevention, being an inferior strategy and not necessarily safer than oral anticoagulants.<sup>2</sup> This means that 60% of our patients were unprotected for stroke in this analysis.
- 2 Among those who were prescribed vitamin K antagonists (VKAs), 64.1% had international normalized ratio <2.0 with a median value of 1.6 which is inadequate for stroke prevention.
- 3 The use of NOACs was only 6% and was not seen to increase with time. This again is disturbing. The fact that NOACs are now proven cost-effective therapy compared with VKAs and also that generic version of dabigatran is freely available in India should actually serve as an excellent opportunity for physicians to adapt. The aforementioned trends of antithrombotic usage in India are not the only concern; even more concerning was that 81.7% of the patients were examined by cardiologists who understand AF better than anyone else.
- 4 The baseline characteristics showing younger age (mean age, 65.8 years) with lower body mass index and more than one-third of population being diabetic make our study population

more unique. Obesity is a risk factor for nonvalvular AF as reported by studies in the West.<sup>3</sup> The average body mass index of 24.3 kg/m<sup>2</sup> falls well below 30.0 kg/m<sup>2</sup>, which is the cutoff for defining obesity. We are all aware that with increasing urbanization in India, obesity is on the increase which will lead to higher incidence of AF and thromboembolic events.

The higher all-cause mortality of 7.68 per 100 person-years among Indians compared with 4.34 per 100 person-years in the other countries is undoubtedly too high. The reasons for higher mortality in Indians could be attributed to the “bad company AF keeps” e.g., diabetes<sup>4</sup> (with more than one-third of the patients being diabetics), but the poor usage of anticoagulant therapy and subsequent thromboembolic events may also have contributed, which was not addressed in this study. Another limitation of this study was the smaller number of patients (1388) compared with 52014 worldwide, which makes the comparison skewed. Nevertheless, the results of this Indian substudy of GARFIELD-AF registry are indeed eye-opening and provide some important messages for Indian physicians.

- 1 It is high time we paid due attention to the menace of AF and AF-related complications in India. Improved care of these patients with greater usage of anticoagulants, particularly NOACs, will certainly be of immense help in reducing event rates.
- 2 The need for intensive, overall risk factor modification to prevent serious cardiovascular events cannot be overemphasized, and this reinforces recommendations of other preventive studies/guidelines from India.<sup>5–7</sup>

### References

1. Sawhney JPS, Kothiwale VA, Bisne V, et al. Risk profiles and one-year outcomes of patients with newly diagnosed atrial fibrillation in India: insights from the GARFIELD-AF Registry. *Indian Heart J.* 2018;70:828–835. <https://doi.org/10.1016/j.ihj.2018.09.001>.
2. Lip GY. The role of aspirin for stroke prevention in atrial fibrillation. *Nat Rev Cardiol.* 2011;8:602–606. <https://doi.org/10.1038/nrcardio.2011.112>.
3. Lavie CJ, Pandey A, Lau DH, Alpert MA, Sanders P. Obesity and atrial fibrillation prevalence, pathogenesis, and prognosis: effects of weight loss and exercise. *J Am Coll Cardiol.* 2017;70:2022–2035. <https://doi.org/10.1016/j.jacc.2017.09.002>.
4. Sankaranarayanan R, Kirkwood G, Visweswariah R, Fox DJ. How does chronic atrial fibrillation influence mortality in the modern treatment era? *Curr Cardiol Rev.* 2015;11:190–198.
5. Misra A, Sharma R, Gulati S, et al. Consensus dietary guidelines for healthy living and prevention of obesity, the metabolic syndrome, diabetes, and related

- disorders in Asian Indians. *Diabetes Technol Ther.* 2011;13:683–694. <https://doi.org/10.1089/dia.2010.0198>.
6. Misra A, Nigam P, Hills AP, et al. Consensus physical activity guidelines for Asian Indians. *Diabetes Technol Ther.* 2012;14:83–98. <https://doi.org/10.1089/dia.2011.0111>.
7. Iyengar SS, Puri R, Narasingan SN, et al. Lipid association of India expert consensus statement on management of dyslipidemia in Indians 2016: Part 1. *J Assoc Phys India.* 2016;64:S7–S52.

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