In the current decade, worldwide there is an increase in the number of women undergoing coronary artery bypass grafting (CABG).<sup>2</sup> This is a surrogate marker of the fact that CAD in women is recognised more often and much earlier than in previous years. This has been reflected in our data.<sup>3</sup> We compared two groups of women undergoing CABG – group I (1998–2002; n=293) and group II (2010–2014; n=395). There was an increase from 11% of the total number of female patients who underwent CABG from Group I to 19.5% from Group II. The mean age is higher and there was increase in the percentage of women having previous PCI in group II. Despite the increase in severity of disease and comorbid conditions, improved outcomes were observed.

## **Conflicts of interest**

None.

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## Letter to Editor



### Dear Editor,

The article written by Sharma et al. on "High sensitive C-reactive protein and interleukin 6 in atrial fibrillation with rheumatic mitral stenosis from Indian cohort" is very interesting.<sup>1</sup> Sharma et al. found that, "Increased hs-CRP and IL-6 levels in the paroxysmal and permanent AF group may favour the hypothesis that low grade chronic inflammation could be the cause of atrial fibrillation than a consequence."<sup>1</sup>

In the methodology part, chornic autoimmune and/or rhematic disease was not excluded. Glucocorticoids remain at the fist lineanti-inflammatory and immunosuppressive treatment for both acute and chronic inflammations, including rheumatoid arthritis, inflammatory bowel disease, multiple sclerosis, psoriasis and eczema, as well as being used in leukaemias and in following organ transplant. Taking immunosupressive medications (ex. corticosteroids and/or IVIG) can affect and change plasma acute phase reactant levels and interleukin levels,<sup>2</sup> can inhibit the activity of crucial transcriptional regulators of pro-inflammatory genes, including NF-κB and AP-1,<sup>3</sup> so patients who taking these drugs should have been excluded from the study. Another missing point is about echocardiographic measurements of left atrial size. Especially in a prospective study, measurement of heart chamber size should be evaluated with 3D echocardiography for obtaining better data. Compared with cardiam magnetic resonans reference, 3D echocardiographic evaluation of left atrial measurement are more accurate than 2D echocardiographic based analysis.<sup>4</sup>

# **Conflict of interest**

None.

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# SMS campaign – Can it facilitate prevention of cardiovascular diseases in India?



### To the Editor

We have read with great interest the recently published article by Bishav Mohan et al.<sup>1</sup> Cardiovascular disease (CVD) is the leading cause of death in India and worldwide.<sup>2</sup> Lack of knowledge and motivation regarding risk factor prevention is one of the major factors responsible for its poor control. We need pragmatic, affordable, and evidence-based solutions to control this massive problem. Mobile phone based technologies offer a potentially scalable, convenient and cost-effective solution, considering the fact that mobile penetration has reached 90% in developing countries.<sup>3</sup> Furthermore, India has the second largest mobile subscriber base globally, with 877 million mobile phone users across all age, income, and ethnic groups, combined with one of the world's lowest tariff rates.<sup>4</sup> In a resource-constrained country like India, healthcare professionals have limited opportunity to have direct one-to-one interaction with people. The effective use of mobile phone-based technology like short-text message service (SMS) thus represents a promising approach to extend the reach of health systems to provide preventive cardiac rehabilitation. Most of the trials addressing the usefulness of SMS based intervention in the primordial, primary and secondary prevention of CAD have been done in high-income countries.<sup>3</sup> Data from India are limited.<sup>1,4</sup> Bishan Mohan et al.<sup>1</sup> have done a remarkable job to send health information related SMS to 40,000 people in Punjab and then assessing the knowledge about prevention of heart disease in 800 participants. However, we have few concerns:

- Based on their results, the authors have concluded that SMS campaign led to an increase in the health-related knowledge among the participants. However, the results and methodology need to be interpreted cautiously. The cross-sectional design of the study renders it extremely unreliable to draw any temporal causal association between the intervention (SMS) and the outcome (increase in health-related knowledge). It would have been more appropriate if the participants were made to answer the questionnaires both before and after the SMS campaign. A randomized controlled trial or a pre-post interventional study design would have been better suited to draw temporality.
- 2. Secondly, the study also showed that people with higher level of education were more likely to recall the health-related knowledge imparted through SMS. Similarly, in a previous Indian study assessing the impact of mobile-based technology on the prevention of CVD by Leo Feinberg et al<sup>4</sup>, it was shown that SMS is not favoured by individuals of older age, lower educational status or lacking employment. Since these groups have a higher prevalence of CVD risk factors, there is potential for SMS based interventions to widen the existing health disparities in CVD.

To conclude, SMS based intervention appears a promising, pragmatic and affordable tool for cardiovascular health education in India. However, the evidence base is lacking. Well designed randomized controlled trials evaluating its impact on 'hard endpoints' are needed to make any conclusions.

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