Response to Letter by Dr. Ajay Malhotra

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Dear Sir:

We appreciate the interest of Dr. Ajay Malhotra and colleagues in our article¹ on the prevalence of intracranial aneurysms (IAs) in patients with aortopathy. They raised concerns about the results and the rationale of the article.

Hypertension, smoking, and female sex are known high-risk predictors for IAs. In our study, we found that smokers and females carried a greater risk for IA among patients with aortopathy. We think that this finding is useful when screening for IA. However, the relationship between cardiovascular risk factors and aneurysmal diseases is complicated, and more studies are needed on this topic. As for the genetic linkage, the results from the literature are contradictory but some specific loci and their relationships with the pathogenesis of IA and aortopathy have been confirmed and were discussed in our article.¹

The rationale for screening high-risk populations was based on the 3.2% prevalence reported in a worldwide meta-analysis² including 68 studies with people from different races. The prevalence of IA varied from 0.1% to 19.1% in these studies² and current studies added further different results. Nevertheless, the prevalence of 3.2% is the most convincing rate at present based on a worldwide meta-analysis. The prevalence from single studies cannot replace this result. Differences in study populations and research methods are the main reasons for the heterogeneity in prevalence between the studies.

Dr. Ajay Malhotra also suggested that screening recommendations should take the growth and rupture risk of incidental aneurysms that are detected in cross-sectional studies into account. We agree with this view and we hope there will be more research in the future to address this problem. Aortic diseases

are always diagnosed by medical examinations using radioactivity and it would be of immense value to add brain screenings to these examinations. Thus, cost-effectiveness studies are needed in this field.

References

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