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REPLY: DRUG-ASSOCIATED INFECTIVE ENDOCARDITIS IS A WORLDWIDE MUTUAL CHALLENGE



Reply to the Editor:

I thank the *Journal* for the privilege to respond to the refreshing letter by Chilvers

and Clark¹ commenting on the article by Mori and colleagues.² In brief, Mori and colleagues² described the daunting increases in the incidence and repeated surgery for drug-associated infective endocarditis. The necessity for postoperative follow-up of the disease was further discussed previously,³ and Chilvers and Clark¹ emphasized that follow-up of the disease might be most efficient in Europe.1

At present, some parts of Europe have a relatively low number of drug abusers⁴; however, drug-associated infective endocarditis is, sadly, expected to increase worldwide with time.^{5,6} Information on intoxicants is easily accessible. Remote places are adopting mainstream trends. The media, the internet, popular culture, underground music, and free travel, all appeal to the young and sensitive. The spread of infection, fashion, and behavior culminate in the complex setup of drug-associated infective endocarditis.

Once attained, drug-associated infective endocarditis will develop to its full horror despite any geographic area of the individual patient. The outcome after surgery for drug-associated infective endocarditis has been dismal compared with many other etiologies of endocarditis.^{4,7} Mori and colleagues² showed that the incidence of drugassociated infective endocarditis is increasing rapidly. The message should be taken seriously, and we should be prepared for a rapid increase in the incidence of drugassociated infective endocarditis, regardless of the current local baseline frequency of the disease.

In addition to vigilant follow-up, we should thus also aim at preventive measures by educating children, enhancing social equality, and supporting the community as a whole. Social security ensures that the sick receive proper treatment; the infective hot spots must be hampered for individuals' and society's sake. Sharing transparent information within and between countries will enhance our learning to control different infections. The key is to balance freedom

and societal control regarding preventive medicine and safety, including the eradication of infections and dangerous habits. All knowledge of the precautions and experience necessary to treat the devastating infection could help and ensure preparedness.

One cannot avoid a comparison with the pandemic coronavirus, even at the risk of overgeneralization. Southern Europe, with a population of the most warm and friendly people who take a natural care of their families and friends, have had a manifold greater number of coronavirus cases compared with Northern Europe, where citizens have a reputation for keeping a physical distance between each other. The total number of coronavirus cases has remained relatively low in the Northern countries and even in Germany. Northern Europe has a considerable advantage in defying the coronavirus with Southern Europe readily sharing their experience in the battle against the infection.

Prevention, treatment, and follow-up are all important in the treatment of drug-associated infective endocarditis. In 2019, the American Association for Thoracic Surgery launched a vision for a registry-based approach to enhance the completeness of patient follow-up and surgical performance that includes risk assessment, real-time feedback, and collaboration. 8 An international workforce could be established to secure the progress of this realistic attempt to gather data to warn about the pitfalls of current practice and aid in resuming concrete initiatives against drug-associated infective endocarditis.

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References

- 1. Chilvers N, Clark S, Letter: infective endocarditis in intravenous drug users in Europe—a clean start? J Thorac Cardiovasc Surg. 2020;160:e131.
- 2. Mori M. Bin Mahmood SU, Schranz AJ, Sultan I, Axtell AL, Sarsour N, et al, Risk of reoperative valve surgery for endocarditis associated with drug use. J Thorac Cardiovasc Surg. 2020;159:1262-8.
- 3. Mennander A. Commentary: when is repeated cardiac valve surgery justified during drug-associated infective endocarditis? J Thorac Cardiovasc Surg. 2020;159:
- 4. Asgeirsson H, Thalme A, Weiland O. Staphylococcus aureus bacteraemia and endocarditis- epidemiology and outcome: a review. Infect Dis. 2018;50:175-92.
- 5. Habib G, Gouriet F, Casalta JP. Infective endocarditis in injection drug users: a recurrent disease. J Am Coll Cardiol. 2019;73:571-2.
- 6. Sanaiha Y, Lyons R, Benharash P. Infective endocarditis in intravenous drug users. Trends Cardiovasc Med. 2019;26:S1050-738.
- 7. Witten JC, Hussain ST, Shrestha NK, Gordon SM, Houghtaling PL, Bakaeen FG, et al. Surgical treatment of right-sided infective endocarditis. J Thorac Cardiovasc Surg. 2019;157:1418-27.
- 8. Blackstone EH. A comprehensive AATS quality program for the 21st century. Presented at: Annual Meeting of the American Association for Thoracic Surgery; May 4-7, 2019; Toronto, ON, Canada.

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