

REPLY: Ischemia With Nonobstructive Coronary Artery Disease

We appreciate the thoughtful letter by Drs Barioli and Tarantini regarding our recent paper on ischemia with nonobstructive coronary arteries (INOCA).¹ They raised an important point regarding including myocardial bridging (MB) as a subtype of INOCA. MB, characterized by a partial or total encasement of the epicardial coronary artery by myocardium, may not fit the traditional definition of INOCA, because it involves dynamic coronary artery “obstruction” due to extrinsic compression.² However, it is also true that the angiographically nonobstructive MB can cause myocardial ischemia owing to its dynamic nature. As the authors commented, exercise or dobutamine stress can unveil hidden obstruction or ischemia caused by MB.² It is interesting to note that the degree of diastolic residual stenosis is more closely associated with diastolic fractional flow reserve measured under dobutamine stress than is systolic stenosis.³ Another insightful connection between MB and INOCA is the high prevalence of endothelial dysfunction and vasospasm in patients with MB.⁴ Because these are key pathophysiologic mechanisms of INOCA, it is essential to consider these aspects in suspected cases of INOCA with coexisting MB. In summary, although MB may not fit the definition of INOCA based solely on its pathophysiologic mechanisms of systolic compression, it should be considered in suspected cases, taking into account MB’s potential impact of hidden obstruction on myocardial

flow and its association with key mechanisms of INOCA.

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The authors attest they are in compliance with human studies committees and animal welfare regulations of the authors’ institutions and Food and Drug Administration guidelines, including patient consent where appropriate. For more information, visit the [Author Center](#).

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