

## Importance of coronary steal syndrome in the assessment of internal thoracic artery flow

To the Editor,

We deeply appreciate Yay et al. (1) for this study published in the May 2014 issue of The Anatolian Journal of Cardiology. We would like to mention that we find the idea of various intermittent Doppler assessments of an internal thoracic artery graft (ITA) for patency very genuine. In this context, we would like to emphasize an idea that would probably bring another aspect to the matter. Subclavian steal syndrome arises when there is proximal subclavian arterial stenosis; coronary steal syndrome is also a specific variant of subclavian steal syndrome when ITA is used as a coronary bypass graft (2-4). In this entity, even though there is no anatomical stenosis in the ITA, coronary circulation can be impaired due to decreased antegrade flow within the ITA through coronaries but increased subclavian steal flow to the left arm. In light of this consideration, we would like to ask Yay et al. if they evaluated their patients for possible coronary arterial steal syndrome. In the case of coronary steal syndrome, there is always a chance to miscalculate the ITA stenosis due to decreased flows within the vessel. We would deeply appreciate if the authors could share any useful data with us. This will also contribute to a universal understanding of flow dynamics in this delicate interesting area.

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### Author's Reply

To the Editor,

We appreciate the well-advised comments by Gökalp et al. (1) on our paper, "Diagnostic accuracy of Doppler ultrasonography for assess-

ment of internal thoracic artery graft patency: An observational study," published in this issue. In our study (2), we evaluated a left internal thoracic artery (LITA) graft by Doppler ultrasonography. Our results showed that Doppler ultrasonography is useful for assessing the patency of LITA. Another phenomenon that can be diagnosed by Doppler ultrasonography (3) is coronary steal syndrome, in which there will be also an impairment of coronary flow (4) that is not related to the native coronary artery or graft stenosis. In our study, we did not observe any coronary steal syndrome, which can be distinguished as follows: there would be a palpable left radial artery pulse in the physical examination, there would be triphasic physiological arterial blood flow in the subclavian artery proximal to the LITA origin, and no reverse blood flow at the LITA that can be detected easily by Doppler ultrasonography. We think that this systematic approach would be helpful in ruling out coronary steal syndrome.

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## Diagnostic accuracy of Doppler ultrasonography for assessment of internal thoracic artery graft patency

To the Editor,

The report "Diagnostic accuracy of color Doppler ultrasonography (CDUSG) for assessment of internal thoracic artery graft patency" is very interesting published in the May 2014 issue of The Anatolian Journal of Cardiology, (1). They noted that "CDUSG is a reliable non-invasive method for assessment of LITA graft patency." It is an acceptable good noninvasive alternative option to postoperative angiography (2). In fact, the use of CDUSG for the assessment is not a new thing. Fukata et al. (3) mentioned that "diagnostic accuracy was improved by measuring the diastolic parameters under continuous infusion of adenosine triphosphate disodium (ATP)." In addition, although it is a non-invasive approach, the final decision to perform graft revision in case there is an observed problem is still not controversial, being based on only CDUSG findings (4).