# LETTERS TO THE EDITORS

The Editors invite readers to submit letters commenting on the contents of articles that appear in the Journal. Also welcome are brief communications in letter form reporting investigative or clinical observations without extensive documentation and with brief bibliography (five titles or less), not requiring peer review but open to critique by readers. Letters to the Editors should be no more than 500 words in length and they may have to be edited for publication.

## Regarding "Selection of patients for cardiac evaluation before peripheral vascular operations"

*To the Editors:*

In a recent study published by Schueppert et al. (J Vasc Surg 1996;23:802-9) the predictive value of clinical risk factors and dipyridamole thallium scintigraphy (DTS) for perioperative cardiac complications was questioned. In patients with peripheral vascular disease, clinical risk factors for coronary artery disease, especially angina pectoris, may not be evident because of limited exercise capacity, concomitant cardiac medication, or silent ischemia. Angina can only be identified in a patient with adequate exercise capacity, usually described as the being able to climb two flights of stairs with grocery bags. Silent ischemia is frequently found in patients with diabetes: in our study population[1] as many as 65%. Concomitant use of medication, especially beta-blockers, may also conceal angina. For the assessment of angina we are suggesting that a non–exercise-dependent stress test be performed in patients with limited exercise capacity, diabetes, or both.

The use of DTS for risk stratification is the subject of considerable debate.[2] The low predictive value of the test may be related to the pathophysiologic mechanism of perioperative cardiac ischemia. Dipyridamole induces a flow maldistribution, with a reduction in subendocardial flow in the regions of myocardium supplied by a stenosed coronary artery. In these circumstances, a mild stenosis may not be severe enough to induce ischemia. Perioperative conditions are quite different, however, with several factors involved, such as tachycardia and coagulation disorders. This drawback is overcome by the use of dobutamine-atropine stress echocardiography (DSE). Dobutamine induces an increased myocardial contractility at low dose and a positive chronotropic response at high dose; both induce an increased myocardial oxygen consumption. In coronary artery disease the resulting ischemia can be demonstrated by new wall motion abnormalities during echocardiographic examination.

In a group of 737 patients DSE had a positive predictive value of 28% and an excellent negative predictive value of 99%. This test also allows a semi-quantitative analysis: the heart rate at which ischemia occurs during dobutamine infusion improves the predictive value.

We agree with Schueppert et al. that the late prognostic value of preoperative cardiac assessment is important. The long-term prognosis is related to the left ventricular function. Both left ventricular function at rest and ischemia during dobutamine stress can be identified by DSE.

We are hoping that the use of DSE will lead to improved grading of cardiac risk factors. This may help us to resolve the difficult question of preoperative and late cardiac risk stratification.

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### REFERENCES

1. Poldermans D, Arnese M, Fioretti PM, et al. Improved cardiac risk stratification in major vascular surgery with dobutamine-atropine stress echocardiography. J Am Coll Cardiol 1995;26:648-53.
2. Goldman L. Cardiac risk before surgery. J Am Coll Cardiol 1996;27:799-802.

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## Regarding "Iliac vein compression syndrome: Case report and review of the literature"

*To the Editors:*

In their case review and review of the literature, Akers et al. (J Vasc Surg 1996;24:477-81) consider an aggressive surgical approach to the treatment of symptomatic patients with iliac vein compression syndrome. Because the authors did not specify the extent of the symptoms and their severity, is edema of a unilateral extremity with no history or evidence of venous thrombosis or thrombophlebitis in an otherwis healthy woman enough to subject that patient to an operative procedure to correct the defect?

This article has not answered a dilemma that was faced recently when the diagnosis of iliac vein compression syndrome was confirmed by a venogram that showed obstruction of the left common iliac vein with collateral vessels to the right iliac vein through pelvic veins. The compression was caused by the right iliac artery, as was demonstrated by a spiral computed tomographic scan. Should this patient undergo the procedure now, receive compression stockings and be observed, or wait until deep vein thrombosis develops and then receive thrombolytic therapy and angioplasty or open surgical correction?