Screening for peripheral arterial disease in prospective coronary bypass surgical patients

Anand Sachithanandan, FRCSI (C-Th)(UK)

Hospital Serdang, Cardiothoracic Surgery, Jalan Puchong, Kajang, Selangor 43000, Malaysia

Leong et al report a high prevalence (24.5%) of largely asymptomatic (68%) peripheral arterial disease (PAD) in local patients with acute coronary syndrome (ACS) 1. This is a persuasive argument to consider routine non-invasive screening for PAD in ACS patients who require coronary artery bypass graft surgery (CABG), perhaps limited to those over age 60 years and with a smoking history. It would be interesting to know if the authors found any correlation between PAD and the presence of left main stem (LMS) coronary (>50%) stenosis in those ACS patients who subsequently had an angiogram. Current guidelines recommend carotid screening prior to elective CABG in patients with significant LMS disease due to the presence of concomitant carotid disease 2. Not surprisingly, patients with LMS disease have often been found to have lower anklebrachial indexes³. The presence of concurrent LMS, carotid and PAD is indicative of advanced disease and reflects the diffuse nature of arterial atherosclerosis.

Detection of occult PAD is important for risk stratification and informed consent. It will also facilitate more judicious peri-operative use of the intra-aortic balloon pump (IABP) in

CABG patients with impaired left ventricular function and similarly raise the threshold for use of vasoconstrictor therapy post-operatively in treating the inflammatory mediated vasodilatory effects of cardiopulmonary bypass. Non-healing of the leg vein harvest site can also be attenuated with use of less traumatic minimally invasive harvesting techniques for patients with documented PAD. Collectively such measures are important for although the incidence of acute peripheral limb ischaemia following CABG is low, it is not insignificant and has considerable morbidity.

REFERENCES

- Leong BDK, Ariffin AZ, Chuah JA, Voo SY. Prevalence of peripheral arterial disease and abdominal aortic aneurysm among patients with acute coronary syndrome. Med J Mal 2013; 68 (1): 10-12.
- Eagle KA, Guyton RA, et al. ACC/AHA Guidelines for Coronary Artery Bypass Graft Surgery: A Report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines. J Am Coll Cardiol1999; 34(4): 41263-1325.
- Doonan AL, Karha J, Carrigan TP, Bavry AA, et al. Presence of carotid and peripheral arterial disease in patients with left main disease. Am J Cardiol 2007; 1: 100(7): 1087-9.