

Medical Expertise

"Development of the European Network in Orphan Cardiovascular Diseases"
„Rozszerzenie Europejskiej Sieci Współpracy ds Sierocych Chorób Kardiologicznych”

EXPERT: Krzysztof Bederski MD, thoracic surgeon

Affiliation: *Department of Thoracic Surgery, John Paul II Hospital,
Krakow, Poland*

CASE SUMMARY

The Authors presented a case of 56 y.o. caucasian female with the 6 months history of hypertension, and hyperlipidemia, former smoker, with hypothyroidism and a positive family history of atherosclerosis. She presented vertigo during quick change of position, heart palpitations, intermittent claudication (>200m). She denied chest pain, exertional dyspnea, syncope. The angiography of the coronary arteries showed 70% narrowing of LAD and about 40% of RCA. The angiography, usg examination and angio-CT revealed: long significant stenosis up to 80% of the left internal carotid artery and right vertebral artery proximal occlusion of the left subclavian artery and the third degree subclavian steal syndrome of the left vertebral artery, critical stenosis of the proximal segment of the left superficial femoral artery, then at the height of a half thigh occlusion of the vessel about 7-8cm long; distal segments visible due to collateral circulation. The patient underwent the invasive procedures including the angioplasty of the left internal carotid artery with implantation of a stent (Carotid Wallstent 7x30mm) on 28.05.2013 and the angioplasty of the right vertebral artery with implantation of the stent (Skylor 4.5x13mm).

DISCUSSION

The term peripheral arterial disease (PAD) is often used to describe atherosclerosis involving the arteries supplying the lower extremities. Risk factors that predispose to the development and progression of both symptomatic and asymptomatic PAD include age, ethnicity, smoking, diabetes mellitus, hyperlipidemia, and hypertension. In addition, emerging

biomarkers of inflammation, oxidative stress, thrombosis and metabolism have also been discovered to be predictive of future PAD events. Since traditional risk factors for PAD predispose to the development of systemic atherosclerosis, identification of PAD increases the likelihood of coexistent coronary heart and cerebrovascular disease. Even after adjustment for risk factors, PAD appears to increase the risk for ischemic manifestations involving these other vascular territories with about a 2-fold increase in myocardial infarction and perhaps stroke. The most dramatic consequence of PAD is impaired survival with a 2- to 3-fold increased risk of 5- to 10-year mortality. Not only is the risk of adverse cardiovascular and cerebrovascular complications elevated in patients with severe PAD, but it is also markedly elevated in those with asymptomatic disease. The focus in the management of PAD should be on early diagnosis and efforts to reduce the risk of adverse events by risk factor modification and antiplatelet therapy.¹

Peripheral arterial disease (PAD) increases cardiovascular event rate in patients with coronary artery disease (CAD). Therefore PAD should be considered in patients with CAD with regard to diagnostic and therapeutic strategies. PAD may difficult diagnostic tests in CAD patients. Patients with PAD and CAD may be limited in stress testing by decreased leg perfusion. In addition, arterial puncture can be more difficult in sclerotic femoral arteries. Cardiovascular risk factors should be treated carefully in all manifestations of atherosclerosis. Target values from current guidelines are similar for PAD and CAD. Inhibitors of platelet aggregation are indication in both CAD and PAD. Exercise not only improves walking distance in patients with intermittent claudication but also improves cardiovascular prognosis in patients with atherosclerosis.²

Patients with carotid stenosis have a high prevalence of CAD—even in the absence of cardiac symptoms—and are at risk of cardiovascular events. While CEA is considered as an intermediate-risk procedure, the cardiac risk associated with carotid revascularization may be lower with stenting than with endarterectomy. stable atherosclerotic patients without previous ischaemic events experienced significantly more events in the case of multisite artery disease, but this does not preclude any prognostic improvement in the case of prophylactic coronary revascularization. Asymptomatic CAD in patients with LEAD is by definition stable, a situation in which coronary revascularization is controversial. In the absence of any specific trial in LEAD patients, the screening and management of CAD may be considered after a multidisciplinary discussion for each case. In patients with unstable CAD, vascular surgery should be postponed and CAD treated first, except when vascular surgery cannot be delayed due

to a life- or limb-threatening condition. The choice between CABG and PCI should be individualized, taking into consideration the clinical presentation of CAD and LEAD, and comorbidities. In the case of LEAD in patients with stable CAD, clopidogrel should be considered as an alternative to aspirin for the long-term antiplatelet therapy. Prophylactic

myocardial revascularization before high-risk vascular surgery may be considered in stable patients if they have persistent signs of extensive ischaemia or are at high cardiac risk.³ |

EXPERT'S OPINION

Cardiovascular risk factors should be treated carefully in all manifestations of atherosclerosis. Inhibitors of platelet aggregation are indication in both CAD and PAD. Exercise not only improves walking distance in patients with intermittent claudication but also improves cardiovascular prognosis in patients with atherosclerosis.

CONCLUSION

The focus in the management of CAD and PAD should be on early diagnosis and efforts to reduce the risk of adverse events by risk factor modification and antiplatelet therapy.

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