

Plurivascular Lesions in Patients with Peripheral Arterial Disease

Piroska Kelemen, Beáta Katalin Kolbert, Mónika Szabó, Hanga Kelemen, Achim Radu, Alwina Ana Stan

University of Medicine and Pharmacy, Tirgu Mures, Romania

CORRESPONDENCE

Piroska Kelemen

Str. Gheorghe Marinescu nr. 38
540103 Tirgu Mures, Romania
Tel +40 265 215 551
E-mail: piroska_kelemen@yahoo.com

ARTICLE HISTORY

Received: 5 August, 2016
Accepted: 16 September, 2016

Beáta Katalin Kolbert • Str. Gheorghe Marinescu
nr. 38, 540139 Tirgu Mures, Romania. Tel +40 265
215 551

Mónika Szabó • Str. Gheorghe Marinescu nr. 38,
540139 Tirgu Mures, Romania. Tel +40 265 215 551

Hanga Kelemen • Str. Gheorghe Marinescu nr. 38,
540139 Tirgu Mures, Romania. Tel +40 265 215 551

Achim Radu • Str. Gheorghe Marinescu nr. 38, 540139
Tirgu Mures, Romania. Tel +40 265 215 551

Alwina Ana Stan • Str. Gheorghe Marinescu nr. 38,
540139 Tirgu Mures, Romania. Tel +40 265 215 551

ABSTRACT

Introduction: Occlusive arterial disease, regardless of etiology, is a progressive chronic disease with multiple vessel involvement. The importance of obstructive arterial disease is that it leads to an increased mortality and morbidity of other cardiovascular disorders. Therefore, the presence of a lesion on a certain artery should lead to the identification of other lesions on the carotid and coronary arteries. The aim of the study was to assess the frequency and severity of lesions in peripheral arterial disease of different etiologies, and also to study its association with multivessel lesions at the level of the coronary tree and the carotid arteries.

Material and methods: We performed a retrospective study on 177 patients with previously diagnosed peripheral artery disease that were admitted to the 2nd Medical Clinic of the County Emergency Clinical Hospital of Tirgu Mures. The patients underwent evaluation of the peripheral artery disease (clinical, arterial Doppler), as well as of the coronary artery disease (clinical, ECG) and the carotid arteries (auscultation, Doppler Duplex ultrasound). The study population was divided into three groups: group 1 – diabetic arteriopathy (n = 79); group 2 – atherosclerotic obstructive arteriopathy (n = 77); group 3 – thromboangiitis obliterans (n = 21). **Results:** The patients' age ranged between 61 and 70 years. Arterial occlusions were found in 87% of cases in group 1. Subocclusions were more frequent in diabetics (11.4%). The artery, in which we found lesions in the highest percentage was the left femoral artery (group 1 – 68.3%, group 2 – 66.23%, group 3 – 42.85%). The second most often affected artery was the right femoral artery, with a 64.45% rate of involvement. In patients with thromboangiitis obliterans, the right anterior tibial artery was the most frequently affected (15.81%). The most frequent coronary lesion was a stenosis of 30–69%, in 35.02% of cases. Three-vessel coronary disease had an incidence of 44.2% in the atherosclerotic group, 34.2% in diabetics, and 23.8% in the thromboangiitis group. From the total rate of previously diagnosed myocardial infarction (MI) – 29.37% (n = 52), 50% were atherosclerotic, 44.23% diabetic, and 5.76% with thromboangiitis. At the level of the carotid system, 68.9% of patients were found to have stenoses under 70%. From these, 48.4% were patients with diabetic arteriopathy, 44.3% with atherosclerotic disease. In 73.4% of cases, we found lesions at all three levels – in case of diabetic and nondiabetic arteriopathy and thromboangiitis, only 14.3% of patients had associated lesions. **Conclusions:** Atherosclerosis (diabetic and nondiabetic) and thromboangiitis obliterans are diseases with plurivascular involvement. It is important to diagnose concomitant coronary and carotid lesions in patients with chronic occlusive arterial illness, because they are often associated.

Keywords: peripheral artery disease, multivascular lesions, carotid lesions, coronary artery disease