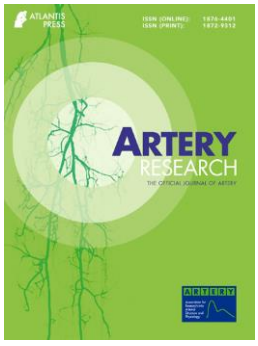


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# P172: ROLE OF ADIPOSE TISSUE AND SKELETAL MUSCLE IN MACROVASCULAR ATHEROSCLEROTIC OCCLUSIVE DISEASE-PERIPHERAL ARTERIAL DISEASE AND CAROTID ARTERY DISEASE

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**P172**

**ROLE OF ADIPOSE TISSUE AND SKELETAL MUSCLE IN MACROVASCULAR ATHEROSCLEROTIC OCCLUSIVE DISEASE-PERIPHERAL ARTERIAL DISEASE AND CAROTID ARTERY DISEASE**

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**Purpose/Background/Objective:** Carotid artery disease (CAD) and peripheral arterial disease (PAD) are non-cardiac manifestations of atherosclerotic disease, which are less extensively studied. Presently, adipose tissue (AT) and skeletal muscle (SM) are considered endocrine organs, producing cytokines with vascular effects 1,2,3,4,5,6,7. Main objective is to clarify the role of AT and SM in several stages of atherosclerotic occlusive disease (CAD and PAD), and its connection with arteriosclerotic changes in other territories. Secondary objective: to study the evolution of these parameters after revascularization and after carotid endarterectomy.
**Methods:** Study Groups (Fig 1): control- without macrovascular atherosclerotic disease eligible for elective varicose veins surgery with inguinal approach. Study group 1- with PAD, confirmed by ankle-brachial index, with or without indication to revascularization. Study group 2- with CAD with or without indication to endarterectomy. We will determine the quantity, endocrine functionand histologyof SM and AT (in groups submitted to surgery). The groups will be evaluated at admission, 3 and 6 months (Fig 2).
**Expected Results:** The quantity of AT compartments (visceral, subcutaneous and perivascular) and SM will be determined with transvers abdominal CT scan at the level of 3th vertebra. The endocrine function will be evaluated measuring the myokines and adipokines in blood sample. During the surgery we will collect samples of AT (visceral, subcutaneous and perivascular), SM and artery for histology. We will determine the type, number and size of present cell and vascularization. Additional Central Hemodynamicdata will be obtained from carotid Doppler ultrasound, carotid femoral-pulse wave velocity; peripheral central pulse pressure; anthropometric and muscle mass measurements will be performed.
**Conclusion:** We hope to correlate the atherosclerotic and arteriosclerotic phenotypes with SM and AT characteristics, as well as indexes of sarcopenia.

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