

**Aim of the study.** The anatomical-clinical study of the arterial collaterals of the lower limbs and their importance for maintaining the function of the lower limbs and preserving their anatomical

**Materials and methods.** As study material were the results of CT-imaging investigations with contrast, in angiographic regime and 3D reconstructions.

**Results.** 3 main aspects were demonstrated: 1. The appearance of the arterial circulation in the lower limb, as usual; 2. Changes induced by partial and total vascular obstruction with limb amputation; 3. Restoring vascularization from other arterial branches. These result have obviously been pointing out of the fact that the vascular insufficiency is a chronic process, with progressive structural changes, it show us different degrees of affectation – from the light calcified with unique stenoses to the total occlusion with limb amputation and the defining role of the collateral vessels through wich the blood flow is redirected and ensures the tissue perfusion.

**Conclusions.** Peripheral arterial occlusive disease presents a high risk of morbidity, affecting 10% of the world's western population the past 50 years. It affects complex the patient with the involvement of the physical life, mental life and social integration. These issues are of particular importance for clinicians and radiologist alike. The most common location of arterial obstructions is at the level of the superficial femoral artery. Ensuring vascularization through the collateral under certain critical conditions like interrupting or disrupting the blood flow through the arteries, is a mandatory condition for maintaining the function of the lower limbs and preserving their anatomical. The imaging aspect of the obstruction degrees allows the precise establishment of the rational surgical approach and procedure.

**Key words:** Lower limb, arterial vascularization, arterial collateral, peripheral arterial occlusive disease.

## 264. SURGICAL ANATOMY OF CHEST TRAUMA

Author: **Daniela Bordea**

Scientific adviser: Suman Serghei, MD, PhD, Associate Professor, Department of Topographic Anatomy and Operative Surgery, *Nicolae Testemitanu* State University of Medicine and Pharmacy, Chisinau, Republic of Moldova

**Introduction.** Pathological changes that occur following thoracic trauma include the full spectrum of mechanical damage to thoracic tissues and organs - from bruises and bruises to the soft tissues of the thoracic wall to fractures of the ribs, sternum and thoracic vertebrae, pleura, lungs, bronchi, bronchi and the heart, large vessels, diaphragm, nerve trunks, esophagus and thoracic duct. These changes in tissues and organs refer both to direct injury occurring at the place of force application and to trauma to the ribs, lung tissue and master vessels.

**Aim of the study.** The study of the clinical anatomy of chest trauma began to be regarded as an independent problem until the end of the 20th century, even though the interest for the surgical treatment of chest trauma is pursued throughout the history of medicine. The purpose of studying this field served the need to develop diagnostic methods, to discover different mechanisms of the pathophysiological disorders that arose from the trauma of the chest and certain vital organs, such as the heart and lungs. Also an extremely important aspect is the knowledge of the anatomical characteristics of the chest, mediastinal organs and lungs, because to a certain extent they determine the nature of the trauma, the diagnosis but also the therapeutic tactic.

**Materials and methods.** Article: “What are the ten new commandments in severe polytrauma management?” - CW Kam, CH Lai, SK Lam, FL So, CL Lau, KH Cheung (World J Emerg Med, Vol I, No 2, 2010); Article: “Damage control orthopedics –when and why” – James H. Carson, M.D; Основы топографической анатомии – Д.Н.ЛУБОЦКИЙ; Множественные и сочетанные травмы – В.А.СОКОЛОВ;

**Results.** The functions of the internal thoracic organs are diverse, but the main ones are the breath and circulation of the blood. Cardiorespiratory disorders are the basis of all pathophysiological disorders in the case of chest trauma. These require emergency prevention and treatment. In the case of thoracic trauma, these conditions are most often interdependent and remain the main causes of death of each third victim with combined chest injuries, although 15% of the victims have no fatal injuries.

**Conclusions.** The severity of the condition does not depend so much on the trauma of certain organs, but on the disorders of vital functions caused by general pathophysiological mechanisms. Examples may be: shock (shock lung), acute heart failure, acute respiratory failure, bronchodilatory syndrome (key moment - edema, dyskinesia, and sputum bronchiolysis). Regardless of the cause of the trauma, the victims of thoracic trauma form several typical syndromes that determine the diagnosis, the treatment tactic and the nature of the typical complications. The main syndromes are hemothorax, pneumothorax, subcutaneous emphysema and mediastinal emphysema.

**Key words:** Chest cavity, trauma, chylothorax, hemothorax, pneumothorax, subcutaneous emphysema, mediastinal emphysema. Shock, acute heart failure, acute respiratory failure, bronchodilatory syndrome.

## DEPARTMENT OF HISTOLOGY, CYTOLOGY AND EMBRYOLOGY

### 265. LYMPHATIC VESSEL DENSITY AND ITS IMPLICATIONS IN BREAST CANCER

Author: **Ecaterina Carpenco**

Scientific advisers: Şaptefraţi Lilian, MD, PhD, University Professor, Department of Histology, Cytology and Embryology, *Nicolae Testemiţanu* State University of Medicine and Pharmacy, Chisinau, Republic of Moldova, Raica Marius, MD, PhD, University Professor, *Victor Babes* University of Medicine and Pharmacy, Timisoara, Romania.

**Introduction.** Among females, breast cancer is the most commonly diagnosed cancer and the leading cause of cancer death. Lymph node metastasis is one of the most important survival predictor in patients with cancers, this being crucial for tumor staging and therapy planning. Studies suggest that metastasizing is directly correlated with the density of lymphatic vessels in the tumor itself and in the peritumoral area.

**Aim of the study.** The goal of our study was to study lymphatic vessels' distribution (intratumoral vs peritumoral areas) as well as the relationships between tumor lymphangiogenesis and various parameters (such as hormone receptors and HER2 status, patients' age, tumor grade).

**Materials and methods.** We analyzed 84 cases of breast carcinomas in terms of their molecular profile and lymphatic vessels' density determined in the intratumoral stroma (D2-40it) and peritumoral area (D2-40pt), using the lymphatic endothelium marker D2-40. The