(33,2%), in three arteries in 6 case (33,2%), in 4 arteries in 2 cases (11,3%) and in 5 arteries in 1 case (5,6%). In 3 cases the artery entered the hilum without branching (16,7%).

Conclusion. We demonstrated that splenic artery most often has a sinous course – 60,5% of cases and in 39,5% of cases has a straight course. In the majority of cases the artery branches in the hilum region in 2 and 3 arteries (33,2%, respectively).

Key words. spleen, splenic artery, splenic artery branches.

289. PROSTATE CANCER. GENETICS, DIAGNOSTICS, TREATMENT AND PREVENTION.

Irina Guriev

Scientific adviser: Dumitru Amoasii, Associate Professor, Department of Molecular Biology and Human genetics, *Nicolae Testemitanu* State University of Medicine and Pharmacy, Chisinau, Republic of Moldova

Introduction: The cancer of prostate continues to be a pathology of unknown etiology and the second leading cause of cancer death. It's a major issue among men after 60 years old. Genetics is investigating many additional genes that may play a role in prostate disease risk. Many genetic studies showed that diagnosis and treatment need a much more intelligent approach. Identifying genetic variants may help researchers find the most effective ways to treat or prevent diseases such as prostate cancer on early-stage. Also, the genetics is able to answer for the mechanisms through which cancer genes stimulate cell birth or inhibit cell death.

Materials and methods: The research is based on contemporary bibliographic and scientific information, including more than 40 literatures in Romanian, English and Russian languages. At the same time studies were based on 184 cases of hospitalized men in "Oncological Institute", during 2013-2014 years. All of them were diagnosticated with prostate cancer.

Discussion results: Literature review revealed many genes with a potential influence in tumorigenesis, like gene PTEN or BRCA1, BRCA2. According to 184 clinical cases, in consideration were taken the patient's age and his PSA level. All results were represented into two tables and two diagrams (for the year 2013 and year 2014). The common fact of both years is that the higher number of patients can be seen in column of 61-80 years, with PSA 10, 1-30 ng/ml. The unique and most young patient was 48 years old man with PSA more than 100 ng/ml. This fact reveals the considerable role of age, which is concerned, in human tumorigenesis. One of the main tasks is to establish principles for monitoring men with a high risk for this tumor and to create a screening test for early discovering. Analysing 184 cases with such diagnostics, we can convince that there is a correlation between age and PSA level. Also, it is known that persons, with sick father or brother, have higher risk to inherit the prostate cancer. It is important to specify that African American are more predispose to develop this disease. The risk increases with diet riched in saturated fat.

Conclusion: Prostate cancer needs an interdisciplinary approach. So, near urology and oncology, a significant part belongs to genetics. Genetic's goal is to prevent cancer using 4K score, that is more

informative than PSA test and to elaborate an efficient method of treating, like gene therapy. Another important observation showed that disease prevails among men after 60 years old and more rarely is found among men with 50 and less years old. It means that age is one of the risk factors, which should be examined among men, as well as other factors like human race, family history or diet.

Key words: Prostate cancer, gene, PSA, prevetion.

290. ANGIOGENESIS OF ATHEROSCLEROTIC PLAQUE

Oleg Gutan

Scientific adviser: Munteanu Andrei, Department of Morphopatology, *Nicolae Testemitanu* State University of Medicine and Pharmacy, Chisinau, Republic of Moldova

Introduction: Atherosclerosis is considered a multifactorial disease with many risk factors: smoking, abuse of alcohol, diabetes, hypertension, dyslipidemia and infection with microorganisms. During angiogenesis in atherosclerotic plaque occurs formation of new vessels to maintain the supply of oxygen and nutrients to the cells of the vascular wall. The growth of new vessel that occurs in the regions of atherosclerotic plaque lesions in course of remodeling is considered predisposal factor to plaque rupture.

Materials and Methods: We used morphological analysis and immunohistochemistry to investigate the expression of CD34, SMA (actin smooth muscle cells) and CD105- positive in affected vessels of large caliber (aorta, carotid) and medium (cerebral arteries, coronary) taken during necropsies of deceased patients from atherosclerotic complications and / or metabolic syndrome. In this study we included 17 fragments of human aorta with calcined fibrous plaques, 15carotid artery with less pronounced morphological stenosis, 13 middle cerebral arteries. The morphology of plaques was evaluated on serial sections stained with hematoxylin-eosin and analyzed on optical microscopy. The following antibodies were used for immunohistochemistry: SMA (smooth muscle actin), CD34, CD105.

Results: At the intimate, most vessels in the region of atherosclerotic plaque were CD34 positive, at level of fibrous plaque - often, and at adventitia, namely vassa- vasorum were positive for CD34 in small and medium vessels. SMA marker is detected in smooth muscle cells, myofibroblasts, myoepithelial cells and less in pericytes. In the region of plaque and its adjacent areas, adventitia and intimate, CD105 vessel density was higher, and in distant regions of atherosclerotic lesion decreased their density.

Conclusions: The role of angiogenesis in atherosclerosis is more complex and depends on the stage of pathological process. Our results show that the method of immunohistochemical with application of specific vascular markers, demonstrates important pathogenetic aspects in atherosclerotic plaque formation. In the development of atherosclerotic plaques and in the process of angiogenesis have an important role mast cells and macrophagestogether with other immunocompetent cells.

Keywords: angiogenesis, atherosclerosis, atherosclerotic plaque, SMA, CD34, CD105