

the brandy seized arterial and microdissection, studied and extending from the SMA it lentikulostriales artery. Sphenoid segment of the area (SMA) arteries: from the bifurcation of the internal carotid artery to the bifurcation. The average length of the sphenoid segment amounted to  $15,9 \pm 2,3$  mm. According to the literature there are three groups lentikulostriales arteries: medial group - direct the course of the artery (4 branches), the intermediate group - in the form of candelabrer-shape artery (up to 8 branches), and lateral group of S-shaped arteries (up to 9vetvey). This type of structure lentikulostriales arteries is called a «classic.» According to our data, this type of structure occurs in 62% of cases, most often in dolichocephals (80%). Besides the classical type of structure we have selected an intermediate type of structure, in which the background to the medial and lateral group of arteries in the middle parts of the MCA was located only one type of container beam, radiating to the substance of the brain up to eight branches. This type of structure met lentikulostriales arteries in 20% of cases, most often in brachycephalic (25%). Of greatest interest is allocated to us, the beam type structure lentikulostriales arteries. In this type of structure throughout the MCA in the middle parts of the beam had the only large vessel, smack in the matter of the brain up to 14 branches. This type of structure occurs in 18% of cases. Most often in brachycephalic (30%) and did not meet with dolichocephals. The analysis of options for building lentikulostriales arteries, depending on the length of the sphenoid segment of the MCA. The classic type of structure met with the length of the sphenoid segment of 3.1 mm to 20mm. The intermediate type of structure - with a length of 11.8 mm to 18.1 mm. Beam-type structure with a length sphenoid segment from 11.7 to 15.2 mm. The correlation analysis between the length and type of sphenoid segment lentikulostriales arteries revealed that the shorter barrel of the AGR, the more likely the beam and an intermediate type of structure. Thus, the length of the sphenoid segment can serve as a guide for determining the type of structure lentikulostriales arteries.

**Key words:** (the) lenticulostriales artery, (the) middle cerebral artery, (the) perforating arteries of the central brain

## THE EFFECTS OF DIFFERENT INHIBITORY PATHWAYS OF PROSTAGLANDIN E2 BIOSYNTHESIS ON RENOMEDULLARY INTERSTITIAL CELLS IN RATS

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**Introduction:** Renomedullar interstitial cells (RMICs) are the prevalent cells in inner medulla. The multiple lipid granules found in their cytoplasm are believed to be storage units for precursors of prostaglandins (PGs), prostacyclins and medullipin, particularly PGE<sub>2</sub>. The aim of the study was to examine the effects due to the inhibition of PGE<sub>2</sub> synthesis via different pathways on the RMIC function, the number of lipid granules, medullary hyaluronan (HA) content and cell viability.

**Materials and Methods:** Thirty-two adult male Wistar albino rats, 180-200g, were randomly divided into four groups (n=8): The control group was treated with intraperitoneal (ip) 0.9% isotonic salt water; the second group was injected with dexamethasone (DEX) (3 mg/kg, 10 days), inhibiting AA release and PG synthesis by PLA<sub>2</sub>; the third group was treated with ip indomethasine (IND) (1 mg/kg, 10 days) to inhibit non-specific COX; the fourth group was injected with ip celecoxib (CXB) (1 mg/kg, 10 days) to examine selective COX-2 inhibition. Ten days later, the dissected renal medullas of sacrificed animals were analyzed with light and electron microscopy. The lipid granules were counted in 50 random RIMCs for each animal (x 6.000 magnification).

**Results:** The morphometric analysis showed that the number of lipid granules is significantly decreased in DEX group, and it is significantly increased in IND and CXB groups when compared to the control group. Moreover, medullary HA content and CD44 immunoreactivity were significantly increased in DEX, IND and CXB groups compared to control group. Regarding cell viability, we found that RMIC apoptosis was significantly higher in PGE2 inhibited groups when compared to control group.

**Conclusions:** These results suggest that lipid granules may be numerical and functionally influenced by PGE2 changes. The functional changes in RMICs through PGE2 may influence HA amount of medulla interstitium, the granules might be storage units of AA and finally, PGE2 inhibition may lead to RMIC apoptosis. Besides, 24 hours urine values collected on the 10th day were significantly increased in DEX and IND groups, but similar to the values of control group in CXB group.

**Key Words:** renal medulla, non steroidal anti-inflammatory drugs (NSAIDs), prostaglandin E2 (PGE2), renomedullar interstitial cells (RMICs), cyclooxygenase-2 (COX-2).

## SUICIDE AMONG THE YOUNG PERSONS – HEALTH AND SOCIAL ISSUES

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**Introduction:** Globalization, automation, computerization and other processes of modern life made from our modern life style a danger. Nowadays, diseases caused by stress are the main causes of death. Suicide became a disease of modern life style and in the same time a problem of public health, being the 11<sup>th</sup> cause of death rate in the world and the second cause of death rate among the human beings aged 25-34 years old.

**Aims:** The goal of our research was to evaluate the characteristics and the etiology of this phenomenon from the health and social position. The objectives included both the study and the analysis of the bibliographical research.

**Methods:** In this research we based on the information from The National Bureau of Statistics, which included information from the official documents (reports) and some information from the researches in the domain.

**Results:** The number of suicides in 2002 in the Republic of Moldova was 16.09‰ per 100 000 inhabitants and in 2009 it was 18.26‰. This growth of 2.17‰ denotes that human beings who committed suicide are more numerous by 74 than in 2002. In 2009, 651 persons committed suicide (32.43‰ men and 5.13‰ women) in the Republic of Moldova. In urban regions 22.33 men per 100 000 inhabitants and 4.09 women committed suicide, in rural localities 39.31 men per 100 000 inhabitants and 5.89 women. The predominant ages in men committing suicides are: 1)50-59 years-old; 2)40-49 years old; 3)60-64 years old. The predominant ages in women committing suicides are the following: 1)50-59 years old;2) 65 and over; 3)40-49 years old. The teenagers maintain an increased rate, if in 2005 173 teenagers committed suicide then in 2009 146 teenagers committed suicide, the figure decreased by 27 persons.

The causes of suicide, depending on age group: 1)Minors up to10 years old- school stress, family breakdown, 2) 10-14-family breakup, school failure, fear of punishment, abuse of parental authority, 3) 15-18 year-depressive conditions, conflicts with parents, and their loss.

**Conclusion:** The suicide became a problem in the public health because it is an increasing trend in