

line through the center of the vertebra body (OY axis) was drawn. The perpendicular line through middle of spinal canal was drawn (OX axis).

**Results and Discussion.** The measurements of the right side showed the following: concerning the OX axis the superior pole is displaced on a distance of  $19.9 \pm 6.5$  mm, the kidney at the level of the hilum on a distance of  $20.3 \pm 6.3$  mm, the inferior pole —  $28.6 \pm 14.6$  mm. Superior pole of the right kidney approaches to OX axis on a distance of  $5.5 \pm 1.9$  mm, at the level of the hilum on  $10.3 \pm 5.0$  mm, the lower pole —  $23.6 \pm 10.3$  mm. The identical measurement of the left side showed that concerning the OX axis the superior pole is displaced on a distance of  $16.6 \pm 7.7$  mm, at the level of the hilum  $21.3 \pm 6.3$  mm, the inferior pole —  $30.8 \pm 10.1$  mm. In relation to the OY axis the left kidney at the level of the superior pole is displaced on a distance of  $8.2 \pm 4.0$  mm, at the level of the hilum on a distance of  $13.5 \pm 7.2$  mm, inferior pole —  $31.8 \pm 12.3$  mm. The vertical displacement of the kidney attracts attention: upward shift was found in 11 cases, and average displacement is on a distance of  $11.5 \pm 5.9$  mm; the downward shift was observed in 25 cases ( $17.2 \pm 8.4$  mm on average).

**Conclusions.** Displacement of the left kidney at all levels was higher than the displacement of the right kidney.

#### MORPHOLOGICAL CHANGES AFTER PLASTIC RECONSTRUCTION OF THE PLEURAL CAVITY IN THE EXPERIMENT

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**Key words:** pleural cavity, anatomy, postpneumonectomy

**Aim.** The aim of the study is early prevention of a postpneumonectomy syndrome in experiment.

**Material and Methods.** During the first series of the experiment the left pneumonectomy was conducted in 5 chinchilla rabbits. In the second series of experiments the plastic reconstruction of 1/3 volume of postpneumonectomy cavity was made in 5 animals. During the third series of experiments the plastic reconstruction of 2/3 volume of postpneumonectomy cavity in 5 rabbits was executed. In the postoperative period CT-scan control was carried out at 30, 90, 180 days. The animals were euthanized on 180 day. Lungs were studied using microscopic sections and histotopograms stained with hematoxylin-eosine and picrofuksin.

**Results and Discussion.** In the postoperative period after the left pneumonectomy at the level of Th<sub>6</sub> the right lung was twice enlarged in a lateral size ( $30.6 \pm 4.7$  mm on average), the area of the lung was

1.5 times enlarged from  $1141 \pm 132$  to  $1756 \pm 167$  mm<sup>2</sup>. After the plastic reconstruction the area of the lung is enlarged 1.3 and 1.2 times. Histotopograms showed the enlargement of lung airiness with a large number of hyperinflated air-cell. Microscopic sections showed that acini had flattened shape, some acini had the destroyed wall and were merged in microcavities of 500–1500 microns in size. In case of plastic reconstruction of the cavity after the removal of the lung mediastinum organs and structures are not displaced, the lung is stretched moderately. On histotopograms the lung structure differs slightly from the norm, microcavities of 150–250 microns in size are located evenly in the central and peripheral parts of the lung. Difference between the second and third experimental series is the high enlargement of a heart segment of the right lung in case of the plastic reconstruction of 1/3 volume of postpneumonectomy cavity. Histological sections showed enlarged acinuses, destruction of acinus's wall is occasional.

#### GASTRO-ESOPHAGEAL LACERATION SYNDROME (MELLORI—WEESS)

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**Key words:** discontinuous hemorrhagic syndrome, Mallory-Weiss syndrome (MWS)

**Background.** The proportion of patients with Mallory—Weiss syndrome (MWS) accounts for about 13–17% of all gastrointestinal bleeding.

**Aim.** To study the gender and morphological features of the course of the MWS.

**Material and Methods.** The analysis of 102 patients treated with MWS was carried out.

**Results and Discussion.** Localization of the defect (102 patients): on the right defect was present in 39 (38.1%) patients; behind — in 35 (34.1%); on the left — in 13 (12.5%); in the front — in 16 (15.3%). More often the gap was located on the back and right wall 74 (72.2%). Topographical and anatomical features of the esophageal-gastric transition (PJP) are of decisive importance in the development of MWS. The greatest thickness and strength of the wall is noted in the front sector, which is adjacent to the weakest left. 51% of patients are unemployed. Abuse of alcohol in persons of this group is the main factor of the disease. In persons over 60 years of age, it occurs in 17.6%.

**Conclusions.** The localization of ruptures in MWS is due to the peculiarities of the morphological structure of the PJP: their preferential location in the right and posterior sectors is determined by the lower density of tissues in these sections and the presence of a fixing ligamentous apparatus.