of this area, which requires work only in manual mode, and this does not exclude the error in the study.

COMPARATIVE MORPHOLOGICAL CHARACTERISTICS OF THE LEVATOR ANI MUSCLE IN MAN AND RAT

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Key words: *m. levator ani, m. pubococcygeus, m. iliococcygeus, m. pubocaudalis, m. iliocaudalis*

Background. Currently, for the study of pelvic floor disorders, such as urinary incontinence, faeces, pelvic prolapse, are used as a model of white laboratory rats.

Aim. From the point of view of the justification of the modeling of the symptoms of pelvic floor disorders, we set the goal of the study: to make a comparative analysis of the structure of the muscle that raises the anus in a man and a rat.

Material and Methods. In our work we used methods of dissection of cadaveric material, light microscopy, morphometry of muscle fibers, histochemistry.

Results and Discussion. As a result, the main forms of the muscle structure that lifts the anus in rats of both sexes are described: a horseshoe shaped in males, «0» shaped in females. The basic forms of muscle fibers of the muscle that lifts the anus are also determined: in humans, they have a rectangular and rounded section; in rats, tricephalus or polygonal shape. Histochemical examination showed the presence in rats in m. levator ani of predominantly glycolytic fibers in contrast to people where the muscle lifting the anus is represented predominantly by oxidative fibers. Conclusions Histochemical methods revealed fast and slow muscle fibers in m. levator ani rats. Glycolic fibers (type II) are represented in the predominant quantity in rats of both sexes in comparison with oxidative (type I). People m. levator ani predominantly consists of slow oxidizing fibers (Bouorcier, Shafik 1999). This feature may be related to the verticalization of the position, the reduction of the caudal vertebrae and the peculiarity of the location of the pelvic organs with respect to the center of gravity of the earth.

Conclusions. Histological analysis of the metabolic profile of muscle fibers m. levator ani of humans and rats, features of the ultrastructural and macroscopic structure on the one hand makes it possible to use the white rat as an object for experimental study of the symptoms of incontinence of urine and feces, prolapse of internal organs; but on the other hand, it is necessary to take into account the functional peculiarity of the prevailing number of muscle fibers, the ability to train muscles to achieve the effect of conservative treatment of incontinence symptoms.

CLINICAL STUDY OF A NEW METHOD OF REDUCING INTRA-ABDOMINAL PRESSURE IN INCISIONAL HERNIA REPAIR BY SUBLAY MESH

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Key words: *method of reducing intra-abdominal pressure, incisional hernia*

Material and Methods. The clinical study included 20 patients suffered from incisional hernias divided up into two groups (main and control) of 10.

Results and Discussion. In the main group (n=10) hernia repair sublay mesh was used together with the original relaxing incision of anterior rectus sheath (RU 2638685) and in the control group (n=10) the classical sublay mesh was used. The level of the intra-abdominal pressure in the end of the surgery was of 11.7±0.6 mm hg.st. and 14.2±0.5 mm hg.st. However, the day after operation the level of intra-abdominal pressure was of 9.8±0.5 mm hg.st. and 12.3±0.4 mm hg.st in the main and in the control group respectively (p=0.05). Postoperative complications in the main group were not observed. In the control group postoperative complications were detected in 20% of patients during the early postoperative course (seroma of the postoperative wound and paresis of the bowel) and 40% patients had postoperative complications during the late postoperative course (chronic pain) (p=0.05).

Conclusions. So the results show that the original relaxing incision is simple, time-saving and safe operation. It provides substantial reduction ofintra-abdominal pressure and postoperative complications.

SURGICAL ANATOMY OF INTERCOSTAL NERVES IN THE AREA OF THE LATERAL EDGE RECTUS SHEATH

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Key words: *abdominal wall, intercostal nerves, chronic pain*

Aim. To study features ofthesurgical anatomy of intercostal nerves in the area of the lateral edge rectus sheath.

Material and Methods. We investigated 88 floating corpses of both sexes, without pathology of abdominal wall. There were 45% corpses