МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ
БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ

М А Т Е Р І А Л И

106-ї підсумкової науково-практичної конференції
з міжнародною участю
професорсько-викладацького колективу
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Матеріали підсумкової 106-ї науково-практичної конференції з міжнародною участю професорсько-викладацького колективу Буковинського державного медичного університету (м. Чернівці, 03, 05, 10 лютого 2025 р.) – Чернівці: Медуніверситет, 2025. – 450 с. іл.

У збірнику представлені матеріали 106-ї науково-практичної конференції з міжнародною участю професорсько-викладацького колективу Буковинського державного медичного університету (м. Чернівці, 03, 05, 10 лютого 2025 р.) зі стилістикою та орфографією у авторській редакції. Публікації присвячені актуальним проблемам фундаментальної, теоретичної та клінічної медицини.

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aponeurotic sutures etc.

However, all these above methods, in addition to their advantages, have several disadvantages that significantly limit their use.

All this indicates the need to develop an effective, non-invasive device to prevent postoperative eventration, the use of which does not require additional surgical techniques during surgery.

The aim of the study. Therefore, the work aimed to develop and clinically substantiate a device for the prevention of postoperative eventration, by studying the frequency of postoperative complications in patients with malignant neoplasms of the abdominal cavity.

Material and methods. To prevent postoperative eventration, we have suggested a non-invasive device, the use of which does not require additional surgical techniques during surgery, and also allows you to use it in case of incomplete (subcutaneous) eventration.

The device consists of 5 plastic plates, 42 cm long, lined with soft fabric and movably connected by the widest parts. The central plate is adjustable depending on the width of the posterior surface of the patient's torso. The two side plates on the free edge have 11 loops for lacing.

To substantiate the effectiveness of this device, we examined 107 patients with malignant neoplasms of the abdominal cavity, with a high risk of postoperative eventration.

To achieve this goal, patients were divided into two groups - comparison and main. The comparison group consisted of individuals whom the suggested device was not used to. The main group consisted of patients who in the early postoperative period used a device to prevent postoperative eventration.

All patients received standard postoperative treatment according to the protocols of medical care for patients with urgent surgical pathology of the abdominal organs.

Results. The obtained results of the study indicate a probable predominance of the frequency of postoperative eventration in patients of the comparison group. It should be noted that there is no significant difference in the frequency of "systemic" and other "local" postoperative complications between the two study groups of patients, which indicates the representativeness of the sample, as "local" postoperative complications lead to the development of eventration.

The average length of hospital stay in patients of the comparison group was 22.7 ± 0.94 days, which is 1.16 times ($p > 0.05$) longer than in the main group (19.6 ± 0.95 days).

Postoperative mortality in patients of the comparison group occurred in 8 (13.3%) persons, which is 6.9% ($p > 0.05$) higher than in the main group - 3 (6.4%) persons.

Conclusions. The use of the suggested device to prevent postoperative eventration allows a non-invasive way to prevent the development of postoperative eventration, as well as in the event of incomplete eventration to prevent the development of complete one.

Chuprovska Yu.Ya.

INFLUENCE OF INTRA-ABDOMINAL HYPERTENSION ON THE STRENGTH OF THE POSTOPERATIVE LAPAROTOMIC WOUND SCARS

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Introduction. One of the main factors of postoperative eventration is intra-abdominal hypertension, which occurs in various surgical pathologies of the abdominal cavity. Despite the presence of a large number of scientific papers on the negative effect of intra-abdominal hypertension (IAH) on the morphological state of granulation tissue in the area of the laparotomy wound, there are no publications on the effect on the strength of the postoperative scar.

The aim of the study. Therefore, the aim of the study was to investigate in an experiment on small laboratory animals the effect of IAH on the mechanical strength of the postoperative scar of a laparotomy wound.

Material and methods. The experiment was performed on 102 laboratory rats, which underwent a median laparotomy and the edges of the muscular-aponeurotic layer of the anterior abdominal wall were brought together with simple nodal sutures.

The main group consisted of 72 animals, which were created IAH by inserting into the abdominal cavity a container (condom) with a certain amount of furacillin. Depending on the level of intra-abdominal pressure (IAP), the animals of the main group were divided into two subgroups. The IAP level of the animal of the first subgroup was 20 smH2O (14.7 mmHg), and the second - 40 smH2O (29.4 mmHg).

The comparison group consisted of 48 animals who had an empty condom inserted into the abdominal cavity after laparotomy.

The mechanical strength of the postoperative scar of the laparotomy wound was determined by the method introduced by GV Petrovych (2010) on the 1st, 3rd, and 5th days after the creation of IAH, by measuring the level of IAH at the time of rupture of the postoperative scar of the laparotomy wound.

Results. The results of the study indicate that the created IAH negatively affects the strength of the postoperative scar. Thus, a steady increase in IAP to 20 smH2O leads to a decrease in the mechanical strength of the postoperative scar, but the latter on the 7th day of observation returns to normal because the difference with the comparison group at this time is unlikely. It should be noted that the strength of the postoperative scar depends on the level of IAP, as the growth of the latter to 40 smH2O leads to significantly lower values against other experimental groups, except for the first subgroup of the main group on the 1st day of observation, where this difference is unlikely. It should be added that the dynamics of growth of mechanical strength of the postoperative scar, throughout the study period, is unlikely at increased IAP to 40 smH2O.

Conclusions. Therefore, the created IAH leads to a decrease in the mechanical strength of the postoperative scar of the laparotomy wound. The degree of a negative impact of IAH on the strength of the postoperative scar is inversely proportional to the level of IAH.

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ADVANCEMENTS AND CHALLENGES IN ORAL CANCER SCREENING

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Introduction. Oral cancer, particularly oral squamous cell carcinoma (OSCC), remains a persistent and substantial global health burden. This cancer type ranks among the most common malignancies, with high incidence rates observed particularly in South and Southeast Asia and several Southern European countries. Various risk factors, including tobacco use, alcohol consumption, and exposure to certain human papillomavirus strains, contribute significantly to the prevalence of OSCC. The urgency for effective early detection and screening is underscored by the fact that oral cancer often presents in advanced stages, leading to lower survival rates and poorer prognoses. Consequently, implementing effective screening strategies is essential to improve early detection, enhance treatment success, and ultimately increase patient survival rates.

The aim of the study. Recent technological advancements are providing promising alternatives that may supplement or replace conventional screening methods. Liquid biopsy techniques, which analyze biomarkers present in bodily fluids such as blood or saliva, offer a non-invasive and potentially more accurate screening option for oral cancer. Salivary diagnostics, for instance, can identify specific genetic or proteomic markers linked to OSCC, thereby allowing for the early detection of malignancies without the need for invasive procedures. Additionally, optical detection systems, such as tissue-fluorescence imaging and optical coherence tomography, have demonstrated substantial efficiency in differentiating benign from malignant lesions. These technologies are designed to detect subtle changes in tissue properties and structure, providing a level of detail beyond the reach of traditional visual or manual inspection methods.

Material and methods. Artificial intelligence (AI), and specifically the use of deep convolutional neural networks, represents a significant breakthrough in the field of oral cancer diagnostics. AI-based models have shown a high degree of accuracy in identifying malignant regions, distinguishing them from normal or benign tissues, and aiding in the grading of OSCC. These technologies not only enhance diagnostic precision but also allow for a level of