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ORAL CANCER SCREENING. MODERN APPROACHES AND PROSPECTS

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Topicality. It is well known that cancer is the second most common cause of death in the world, claiming about 10 million lives each year. However, every third of these cases could be prevented by early diagnosis and timely treatment. Oral cancer (OC) is among the 10 most common causes of cancer deaths in Ukraine, and in 38.8% of cases, patients die within 1 year of diagnosis. This is due to the fact that this type of sociopathology is usually detected in the late stages, after the appearance of metastases in lymph nodes and other tissues and organs. At this stage of cancer, isotropic treatment is ineffective and even impossible. The situation can be corrected by an effective method of early diagnosis and timely suspicion of OC. That is why it is important to find effective methods of OC screening, as this issue is still insufficiently studied.

The aim of the study: to analyze the existing methods of OC screening, their specificity, and sensitivity, the current state of their implementation in global screening programs, as well as to study the prospects of new approaches to OC screening. An analysis of scientific literature sources that correspond to the topic and purpose of the study.

A review of the literature has shown that no successful attempts at organized or opportunistic screening programs have been made, and none of them have been accepted at any level of the health care system in the world. The main method of screening remains a physical examination of the oral cavity with various auxiliary approaches, although none of them was specific or sensitive enough for an organized screening program. On the other hand, physical examination of the oral cavity using various light adjuvant systems remains promising for opportunistic screening. According to research trends, spectroscopy and polarimetry of tissues and fluids of the oral cavity can be an effective tool for early diagnosis. The main disadvantage of this method is the difficulty of interpreting the results. Convolutional neural networks and other artificial intelligence technologies, in our opinion, can overcome this problem. Attempts to create an OC screening model based on artificial intelligence already exist, showing promising results.

Thus, none of the currently available screening technologies are sufficiently relevant, practical, effective, sensitive, and cost-effective. The need to develop an improved tool for screening oral cancer with elements of artificial intelligence based on in-depth learning technologies has been identified and emphasized.

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SOME FEATURES OF THE POSTOPERATIVE EVENTRATION DEVELOPMENT ON THE BACKGROUND OF THE ONCOLOGICAL PROCESS

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One of the dangerous postoperative complications in abdominal surgery is eventration. This postoperative complication mostly occurs after emergency surgery on the abdominal cavity, in debilitated elderly and senile patients with low immunobiological condition. The phenomena of secondary immunodeficiency, cachexia, anemia, etc. occur in patients with oncological diseases of the abdominal cavity, which causes a high risk of postoperative eventration. The study of some features of the occurrence of eventration on the background of the oncological process will provide a better understanding of the role of the latter in the development of this postoperative complication.

The aim of the study was to experimentally investigate the effect of malignant neoplasms on the mechanical strength of the postoperative scar of a laparotomy wound, as well as to clinically study the frequency of postoperative eventration in patients with malignant neoplasms of the abdominal cavity. Experimental studies were performed with the participation of 102 laboratory rats, which underwent a laparotomy with a length of 3.0 cm. The main group of animals, two weeks before the laparotomy, was vaccinated with Guerin's tumor under the skin of the outer thigh. The mechanical strength of the postoperative scar of the laparotomy wound was determined on the 1st,