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Analysis Of the Results of Surgical Treatment of Adults with Rhinocerebral Mucoromycosis

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Annotation: This article summarizes the experience of surgical treatment of mucormycosis of the rhinocerebral type. The work is based on the results of complex treatment of 134 patients with mucoromycosis of the rhinocerebral type, who were treated in the department of ENT and maxillofacial surgery of the MMC of the Andijan region, as well as in the department of neurology of the Republican Center for Emergency Medicine of the Andijan branch from 2019 to 2022, aged from 45 to 65 years. Of these, 33 (24.6%) patients were male and 101 (75.3%) were female. The main affected areas were the nasal cavity, the maxillary sinus and the upper jaw of the facial skeleton (118 patients (88.1%)).
In the long-term period from 3 months to 2 years, 52 (41.9%) patients showed good, 59 (47.6%) satisfactory and 13 (10.5%) unsatisfactory results

Key words: treatment, prevention, treatment tactics, mucormycosis, rhinocerebral type, result.

The relevance of the problem: According to the World Health Organization, fungal diseases are registered in every 5 inhabitants of our planet. Statistical processing of the incidence of mycopathology is difficult, due to the fact that the number of patients with animal and human mycoses is difficult to account for, especially in certain regions of Russia, and the methodology for registering mycoses by type of pathogen has not been sufficiently developed. (Domnitsky I.Y. 2009).
Approximately 400 species of parasitic fungi have been included in the modern taxonomy of mycoses and in the list of potential pathogens of mycotic diseases of animals and humans, while there is an increase in the incidence of mycoses, both in humanitarian and veterinary medicine, and new pathogens of fungal infections are also being registered.
Fungi are an extensive group of organisms, numbering about 100 thousand species, of which about 150 are primarily pathogenic to humans and animals. Micromycetes can be both normal inhabitants of the human body, and contribute to the development of mycoses or induce allergic conditions. According to WHO statistics, the incidence of fungal infection worldwide is 20-70%.
Potentially pathogenic fungi widespread in nature, which under certain conditions can cause fungal diseases, are becoming increasingly important. This group includes, in particular, representatives of the genus Aspergillus, many species of which were previously considered rare pathogens of infectious diseases. Diseases caused by micromycetes of the genus Aspergillus are known as aspergillosis; their symptoms include a wide range of severe chronic and allergic conditions, as well as diseases of the so-called saprophytic nature affecting the surface structures of the body. Thus, invasive aspergillosis (IA) is the most common cause of death in patients who have undergone chemotherapy treatment, lung or other organ transplantation, and also poses a danger to patients with long-term neutropenia, active HIV infection, and hereditary immunodeficiency. Mortality in various categories of patients with IA reaches from 36 to 90%. On the other hand, superficial mycoses, aggravated by secondary aspergillus infection, are among the most common today. Moreover, Aspergillus is increasingly being identified as a primary infection in mycoses of the skin and its appendages.
The aim of the study is to improve the results of treatment of mucoromycosis through early diagnosis and the development of a new method of surgical treatment.

Materials and methods: The work is based on the results of complex treatment of 134 patients with rhinocerebral mucoromycosis who were treated in the department of ENT and CHLC of the MMC of the Andijan region, as well as in the Department of Neurology of the RCEMP of the Andijan branch from 2019 to 2022, aged 45 to 65 years. Of these, 33 (24.6%) were male and 101 (75.3%) were female. The main affected

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areas were the nasal cavity, maxillary sinus and upper jaw of the facial skeleton (118 patients (88.1%)). Patients were admitted to the department at various times (from 2 to 5 days) after the identification of cerebral symptoms such as headache, dizziness, vomiting, loss of consciousness and sometimes coma. It was also accompanied by exophthalmos, ptosis, necrosis of the mucous membrane of the hard palate. Patients are prescribed conservative treatment before and after surgical interventions in order to improve microcirculation in blood vessels, antifungal, as well as symptomatic therapy.

Results and discussions. Along with traditional methods of surgical treatment, new methods of operations for opening purulent-inflammatory foci were used. The choice of surgery depends on the area and location, as well as the condition of unaffected adjacent tissues.

The technique of the operation is as follows: The operation was performed according to the patient's condition under local or general anesthesia. To open a purulent inflammatory lesion, an incision is made by oral or nasal access. Along the line of the transitional fold between the 2nd and 6th teeth. In an acute and blunt way, the bone of the upper jaw exfoliates to the infraorbital opening. Upon visual examination, the canine fossa of the upper jaw is degeneratively altered, and osteonecrosis of the bone is also determined. On the side of the nasal entrance, the mucous membrane of the nasal passage is subatrophied or necrotized. In such cases, an ENT doctor is invited to the operating room and surgery is performed jointly. It penetrates into the maxillary sinus through the dog's fossa. When examining the maxillary sinus, necrotic mucous membrane of the maxillary sinus is observed, as well as calcinate after the death of the fungus. The cavity is completely sanitized. The bottom of the eye socket is perforated through this hole and accumulated fluid is released through this hole. You can see the deviations of the exophthalmos. Next, the lateral wall of the maxillary sinus is perforated and through this hole the mucous membrane of the nasal passage peels off to the latticed bone. The latticed bone is completely scraped out with a surgical spoon. Revision. Hemostasis. Cleansing the cavity. The mouth through the natural course of the nose. The wound is stitched with a U-shaped seam using polyflament.

After 2 days, turunda is pulled out through the nasal passage. Oral rinsing with antiseptic solutions is prescribed for patients with CHLH. After the 5th day of surgery, the patient is discharged for further outpatient treatment.

Morphological studies have shown that osteonecrosis with fungal etiologies is detected in the biopsy, A. nigger 96 is possible, which was 71.6%, A. parasitis 10 (7.5%), A.flavis and the rest.

Results. In the postoperative period, 10 (7.5%) of 134 patients had a fatal outcome after the 9th day of surgical treatment. This is due to other pathologies such as ketoacidosis, stroke, coma.

Wound suppuration and suture divergence were noted in 23 (18.5%) of 124 patients. In such cases, the stitches are temporarily removed and the wound has healed secondary. In 8 (34.8%) of 23 patients, a defect of the hard palate was noted. In such cases, surgical intervention was repeated after 3 months to close the defect. The wound has healed primitively.

In the long-term period from 3 months to 2 years, 52 (41.9%) patients had good results, 59 (47.6%) had satisfactory results and 13 (10.5%) had unsatisfactory results.

Conclusions. Early diagnosis using MSCT makes it possible to identify the affected areas of the rhinocerebral type. Additional research methods such as mucology make it possible to identify antifungal antibiotics that are highly effective for the treatment of mucoromycosis.

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