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RESULTS OF COMPLEX TREATMENT OF VARIOUS TRAUMA OF FRONTAL SINUS

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ABSTRACT

This article presents the results of comprehensive treatment for patients with combined injuries of the nose and paranasal sinuses. Combined craniocerebral injuries vary. First aid is provided first, i.e., bleeding from wounds is stopped, the wound is firstly surgically treated and sutured. Simultaneous symptomatic treatment is performed. Respiration, blood pressure, heart and brain activity will be restored. If there is a hematoma of the brain, a craniotomy is first performed to prevent complications, bleeding is stopped, and only then is planned treatment performed.

Keywords: Paranasal sinuses, trauma of paranasal sinuses, mucociliary transport.

INTRODUCTION

Analysis of the data showed that in operated patients, olfactory disturbances recovered in a short time (8 days), while in patients receiving conservative treatment, this indicator recovered after a long time (P<0.02).

Odor disorders are associated with damage to the peripheral olfactory reflex, which are restored after treatment, while anosmia is associated with the central mechanism of damage, i.e., the frontal lobe of the brain.

Results of the study of the hydrogen index (pH) of nasal secretion in this group of patients before and after treatment showed that in patients receiving conservative treatment n=30, a shift to an acidic environment was observed before treatment - 6.10 ± 0.004 (P<0.02) and on the 8th day after treatment, this indicator was 6.90 ± 0.05 compared to the control group (control group indicator - 7.15 ± 0.007 , n=20), the indicator of n=16 operated patients before treatment was 5.9 ± 0.002 and after treatment - 6.85.

Mucociliary clearance data showed that in patients n=30 who received conservative treatment on the 3rd day, saccharine time lasted longer than in patients in the control group (18.1 ± 0.03) (21.1 ± 0.05) (P<0.02), while on the 8th day this indicator decreased to 20.1 ± 0.05 ; in patients n=16 who received surgical treatment, this time lasted longer than in the control group 22.3 ± 0.04 (P<0.05), and on the 8th day after treatment, this indicator decreased to 19.

These disorders of mucociliary clearance were associated with damage and swelling of the nasal mucosa, which led to a slowing of mucosal movement. In patients receiving conservative treatment, this indicator decreased on the 8th day, while in patients receiving surgical treatment, this indicator approached the control group.

A study of nasal mucosal absorption function showed that in patients receiving conservative treatment, it was longer than the control value on day 3, and closer to normal on day 8. On the 3rd day of surgical treatment, this indicator was 75 ± 0.04 mg, and on the 8th day, this indicator was within the control range (P<0.05).

Results of the study of nasal excretory function showed that in n=30 patients who received conservative treatment, the mass of the balloon on day 3 was 41.1 ± 0.04 mg, meaning it was 3.1 ± 0.04 mg heavier than the control weight (P<0.02), and on day 8 this indicator was closer to the norm 39.1 ± 0.04 mg, while in n=16 patients who received surgical treatment, this indicator was 43.2 ± 0.05 mg on day 3, meaning it was 5.1 ± 0.04 mg heavier than the control (P<0.01)

CONCLUSION

Therefore, it can be concluded that according to the results of the conducted research, it has been established that damage to the frontal sinus is accompanied by a decrease in the volume of the frontal sinus, leading to impaired function. The upper wall is most often damaged (67%). Following complex treatment, the anatomical integrity of the walls and the function of the nasal mucosa are restored.

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