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MODERN DIAGNOSIS AND TREATMENT OF VASOMOTOR RHINITIS

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ABSTRACT

The article describes the methods of surgical treatment of patients with vasomotor rhinitis using the apparatus "Fotek", ultrasonic disintegration of the lower nasal shells and vasotomy for comparison and identification of positive
results of treatment of the disease. Describes the moves and methods of operations and the General condition of patients in the postoperative period.

The purpose of the study:
Based on clinical data, to compare electrosurgical methods of ultrasonic disintegration and radio wave surgery during vasotomy in patients with vasomotor rhinitis.
Research methods.
As part of the clinical study, we applied various methods of electrosurgical exposure during vasotomy in 103 patients, 50 (48.5%) men and 53 (51%) women aged 18 to 70 years (average age 36± 3.4 years). All patients were grouped into two groups. Patients of the 1st group (51 patients) the method of ultrasonic disintegration is applied. In the 2nd group (52 patients) – the method of radio wave surgery using the Fotek device. The age and gender groups were identical (p>0.05).
Criteria for inclusion of patients in the study:
1. Age from 18 to 70 years.
2. The presence of prolonged (more than a year) nasal breathing difficulties and nasal congestion requiring surgical treatment.
3. Slight curvature of the nasal septum, which does not affect nasal breathing, that is, does not require surgical treatment.
Criteria for excluding patients from the study.
1. The presence of neoplasms of the nasal cavity.
2. Previously performed similar operations in the anamnesis.
3. Allergic rhinitis
4. Curvature of the nasal septum with impaired nasal breathing.
5. Any acute or exacerbation of chronic diseases, including ENT organs.
6. Refusal of the patient from surgical intervention.
7. Decompensated conditions in diseases of the heart, blood vessels, lungs, liver, which do not allow the patient to operate without risk to life.

In the treatment of vasomotor rhinitis, submucosal reduction of the lower nasal concha was performed using electrosurgical radiowave method in 52 patients and ultrasound disintegration in 51 patients.

The operation was performed in a sitting position under local infiltration anesthesia Sol.Novokaini 1%-10.0 ml into each nasal conch without prior anemization of the nasal cavity, an injection needle was injected into the anterior end of the lower nasal conch during anesthesia. A large amount of anesthetic solution determines the effectiveness of the intervention, since the destructive effect of ultrasound is most pronounced in an aqueous environment. After anesthesia, an ultrasonic waveguide was inserted into the anterior end of the lower nasal concha and moved forward along its entire length, forming a channel. The exposure was 60-75 seconds per sink. After its extraction, if necessary, a second channel is similarly formed in parallel in the thickness of the shell.

In our study, an additional channel was formed in 5 patients, in 2 with vasomotor neurovegetative rhinitis, in 3 with year–round allergic rhinitis.

Despite the fact that low-frequency ultrasound waves coagulate the destroyed vessels and should practically exclude bleeding. In our study, bleeding from the anterior end of the lower nasal concha was noted in 12 clinical cases, in 7 patients, bleeding was stopped as a result of anemia of the nasal mucosa with 0.1% epinephrine solution and short-term pressing of a gauze swab to the bleeding area for several minutes. 5 required tamponade of the nasal cavity with gauze napkins for an average of a day.

Reactive phenomena of the nasal cavity in all patients persisted for 8-12 days. In 6 cases, there was a rise in temperature for 1-3 days, up to subfebrile figures.

In the treatment of vasomotor rhinitis, submucosal reduction of the lower nasal conchs was performed using the radio-wave electrosurgical method, a bipolar two-needle electrode 20-30mm long was used in 53 patients. The operation was performed in the position of the patient on his back with his head raised, under local infiltration anesthesia Sol. Novokaini 2%-5.0ml

The electrode was inserted under the mucous membrane of the lower nasal conch using cold methods without activating the lower pedal. Coagulated, woven with a power of 35 watts until the visible contraction of the lower nasal concha, while the mucous membrane acquired a whitish hue. The operation was performed in 4 places throughout the nasal conch. In cases of special hypertrophy, an electrode was additionally inserted into the tissue.

Control before and during the surgical period in all patients was carried out using the following methods:

1. Endoscopic examination
2. Anterior active rhinomanometry (PARM)
3. Study of mucociliary clearance using saccharin test

Research results

After volumetric reduction of the lower nasal concha in the first group of ultrasonic disintegration, nasal concha edema persisted in all patients for 8-12 days. After radio wave exposure, the formation of crusts in the early postoperative period was observed in 2 patients, in other cases, edema, tissue

hyperemia 1-3 days after surgery were minimal.

PARM was performed in both groups before reduction, 10 days, a month, 6 months after reduction of the inferior nasal concha. In group 1, 48 (90.3%) out of 50 patients, we observed an increase in the total exhaled air flow by 1.5-2 times 6 months after the operation. In the second group, 45 (76%) of 53 patients showed a 2-4-fold increase in the above indicator, which indicated the advantage of the radio wave method ($p<0.05$).

Thus, after the radio wave method, the average volume of inhaled air increased by an average of 3 times 6 months after surgery, and after ultrasonic disintegration by 1.5 times ($p< 0.001$). Radio wave exposure significantly effectively affects mucociliary transport and the functioning of the ciliated epithelium of the nasal mucosa.

Conclusions :

1. The immediate results of treatment showed a higher efficiency and safety of the method of radiowave surgery compared with ultrasonic disintegration in patients with vasomotor rhinitis, which was proved using objective research methods.
2. Long-term results revealed a persistent improvement in nasal breathing in patients with vasomotor rhinitis (88%) 6 months after reduction of the lower nasal concha.

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