Efficacy Of Polydex And Anise Essential Oil In The Treatment Of Patients With Benign Vascular Lesions Of The Nasal Cavity

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ABSTRACT

Benign vascular tumours of the mucous membrane of the nasal cavity and sinuses account for 10% of all hemangiomas of the head-neck region and 25% of all non-epithelial tumours of this region, being the most frequent among non-epithelial tumours and occupying the second place after epithelial neoplasms. The standard method of treatment of nasal cavity tumours involves their removal by surgery or with the use of modern technologies (laser destruction, sclerosing, etc.). However, in order for the patient to return to active life activity it is necessary to recover the postoperative field for a long time, which also causes considerable discomfort to the patient. In connection with this situation, as well as due to the lack of expected effects from traditional methods of treatment of postoperative patients there is a need to find more effective ways to combat postoperative effects. This work is devoted to the study of the effectiveness of polydex and essential oil of anise in this situation

Keywords: haemangioma, polydex, anise oil, pathology.

Introduction. Benign tumours of the nasal cavity are a group of pathological neoplasms localized in the nose, which are not characterized by the presence of metastases and malignant growth. Such neoplasms can be formed from any tissue, unlike sarcomas and carcinomas, their morphological origin can be determined using microscopic diagnostics. A clinical indicator of this pathology can be loss of smell, difficulty breathing, headache, exudative or purulent discharge from the nose, in some cases bleeding from the nose. The detection of this pathology is carried out by rhinoscopy. To determine the exact localization of the pathological process, additional diagnostic measures are required: pharyngoscopy, X-ray examination of the paranasal paranasal sinuses, as well as cranial, ophthalmological examination, MRI or CT of the brain.

The population of the study consisted of 93 patients, divided into the following groups I main group (n=53), with Polydex and Anis oil therapy performed on all patients after surgical treatment against the background of traditional

treatment. For reliable information, the main group is divided into two subgroups:
Subgroup A (n=25) consisted of patients who received Polydex preparations against the background of TL;
Subgroup B (n \ u003d 28) - patients who received Polydex and Anis oil against the background of TL.
The comparison group (n=20) are traditionally treated patients. A control group (n=20) made up of almost healthy individuals was selected for detailed information on endogenous intoxication and nasal function indicators.Jinsiy asosda bemorlar quyidagicha taqsimlangan: 48 (65, 7%) ayollar va 25 (34, 3%) erkaklar.
The study population was of working age, from 18 to 60 years, the absolute majority - 47 patients (64, 3%) aged 18-44 years and 26 patients (35, 6%) aged 45-59 years. The indices of functional status according to DSSPN are presented in Table 2.
Lack of satisfactory effectiveness of traditional therapy in the treatment of benign vascular lesions of the nasal cavity led to the search for other approaches in the treatment of this disease. For this purpose, anise essential oil was used in the treatment of group III patients (due to its high concentration, anise essential oil was mixed with a carrier oil - in this case with bitter almond oil). The drug was administered endoscopically three times a day in the same dosage for one week before and two weeks after surgical resection of the neoplasm against the background of conventional treatment. In this group 17 (60, 7%) neoplasms were operated under local anaesthesia, 11 (39, 3%) - under general anaesthesia.
The patients in group 1 B who received anise oil extract on the background of THF had a satisfactory postoperative period, the wounds healed faster, crust formation was insignificant, the nasal cavity self-cleaned very quickly, and recovery was faster; in addition, they were less traumatised during the recovery period. The results of the saccharin test in subgroup B patients were within acceptable values.

Table 1
Results of the saccharin test of patients of subgroup B in the postoperative period

index	Before the operation.		Через 10 дней после операции		Через 1 мес. после операции	
	M	m	M	m	M	M
MST	19,00	0,56	17,00	0,42	16,00	0,40

As can be seen, the transport function of the nasal mucosa was reduced in all patients. The average index of this function before surgical intervention was significantly higher than normal (p<0, 0001), although there were no significant differences between the groups (p>0, 05). The majority (65%) of the studied patients showed transport dysfunction of the nasal mucosa of the second degree, 23, 33% - of the first degree and 11, 66% - of the third degree.

In patients of subgroups A, B, control group and comparison group all the criterion indices of the nasal mucosa condition before the operation deviated from the norm, there were no statistically significant differences. Thus, the clinical manifestations of nasal septal curvature according to VAS and the severity of preoperative nasal obstruction in different groups of patients were almost the same degree, the volume of surgical intervention in all groups was the same, and the initial functional state of the nasal mucosa in all patients of the study was the same, which minimised errors in the interpretation of treatment results in the postoperative period.

Table 2.
Clinical symptoms of patients of 1 B-subgroup (TL + polydex + anise extract) before and after treatment

№	Clinical symptom	Before treatment N=28	7-day treatment N=30 n (28)	14-day treatment N=30 n (28)	21-days of treatment N=30 n (28)
1.	Difficulty in nasal breathing	23 (76,7 %)	15 (50,0 %)	7** (23.3 %)	2*** (6,7 %)
2.	Pathological nasal discharge	15 (50,0 %)	8 (26,7 %)	4** (13,3%)	1*** (3,3 %)
3.	Headache	13 (43.3 %)	6 (20.0 %)	3* (10,0%)	1** (3,3 %)
4.	Nosebleeds	25 (83,3 %)	9 (30,1 %)	4** (13,3%)	0 (0%)
5.	Sensation of foreign body in the nose	9 (30,0%)	3 (10,0%)	1** (3,3 %)	0 (0%)
6.	Olfactory disorders	14 (46,7%)	7 (23,3%)	2** (6,7 %)	0 (0%)
7.	General intoxication	30 (100,0%)	25 (83,3%)	19** (63,3%)	12** (40,0%)
*Note: *-p<0.05, **- p<0.01 The x2 and Fisher's criteria were used to compare the variables.*					

The average index of nasal mucosa excretory function in all patients before surgery was below normal (p>0, 05). In the majority of patients (23, 33%) this function was impaired in the second degree, first degree impairment was diagnosed in 23, 33% of patients, third degree impairment - in 10, 0% of patients. The study of the suction function of the nasal mucosa preoperatively showed that it was reduced in all groups of patients.

Table 3.

Distribution of average indicators of transport function by degree of impairment

	Number of persons (in % and absolute numbers))		
	Degree of violation		
Patient groups	1 degree (16-19 minutes)	2 degree (19-21 minutes).	3 degree (more than 21 minutes)
Subgroup A	23,33%	66,67%	10%
Subgroup B	23,33%	60,0%	16,67%
main	20,0%	73,33%	6,67%

As can be seen from Tables 1 and 3, the transport function of the nasal mucosa was reduced in all patients examined. The mean index of this function before surgical intervention was significantly higher than normal (p<0, 0001), although there were no significant differences between the groups (p>0, 05). Most patients (65%) had second-degree nasal mucosal transport dysfunction, 23, 33% had first-degree dysfunction, and 11, 66% had third-degree dysfunction.

In patients of subgroups A, B and the main group, the preoperative nasal mucosa condition indices of all the criteria we studied deviated

from the norm, although the differences were not statistically significant. Thus, the clinical manifestations of nasal septum curvature according to VAS and the severity of preoperative nasal obstruction were practically the same in different groups of patients, the volume of surgical intervention was the same in all groups, and the initial functional state of the nasal mucosa was the same in all patients of the study minimised errors in the interpretation of the results of postoperative treatment.

The mean index of nasal mucosa excretory function in all patients before surgery was below normal (p>0, 05). In the majority of patients (23, 33%) this function was impaired in the second degree, in 23, 33% - in the first degree and in 10, 0% - in the third degree. When the suction function of the nasal mucosa was examined preoperatively, this function was impaired in all groups of patients. In group B, preoperative CT was performed in 10 (40%) and MRI in 8 (32%) patients. The results were positive in all (100%). After treatment, group III patients regained a normal microbial lumen of the PN, according to radiographic images; in group 1 B, 15 (60%) patients showed signs of inflammation before treatment but not after treatment. Endoscopy showed signs of neoplasia in 13 (52%) patients before treatment, but all (100%) of these changes recovered after surgery.

Against the background of traditional treatment of benign vascular lesions of the nasal cavity, the combination of anise essential oil and Polydex resulted in greater suppression of POL reaction and reduction of the concentration of hydrophilic components of endotoxaemia in blood plasma to control values (Table 5). MDA content under the influence of anise essential oil decreased by 42, 6 %, which was not significantly different (P>0, 05) from the value after application of Polidex and by 79, 6 % from the value after standard treatment (P<0, 05). Plasma catalase activity against anise essential oil increased by 60, 0% and was 173, 3% and 70, 8% higher than after standard Polydexa treatment.

Table 4.
Indicators of endogenous intoxication in patients of group II (TL + polydex + anise extract) before and after treatment

Indicators	Before treatment (n=28)	7-day treatment (n=28)	14- day treatment (n=28)	21- day treatment (n=28)
MDA, μmol/l	6,54±1,42	5,88±1,78	5,21±1,73*	4,35±1,42***
CA, μcat/sec-l	0,26±0,06	0,36±0,10	0,40±0,13**	0,59±0,16***
MCM254, u.u.	0,59±0,12	0,49±0,09*	0,42±0,10**	0,38±0,11**
MCM280, u.u.	0,48±0,08	0,41±0,05	0,36±0,05*	0,30±0,06**
CUB, u.u.	0,89±0,18	0,95±0,11	1,01±0,12	1,07±0,12*
MDA/CA, u.u.	25,1±4,2	16,3±1,69	11,83±1,52*	7,37±0,95**
*Note: *-p<0.05, **- p<0.01, ***- p<0.001.* *Wilcoxon test was used to compare groups of variables.*				

The significant antioxidant effect of this preparation was demonstrated by a reduction in the MDA/CA ratio of 80, 4%, which was significantly greater than that of conventional preparations or Polydex. Anise oil extract decreased MCM254 and MCM280 concentration by 45, 0% and 35, 5%, respectively. When this effect was compared with the use of Polydex, the concentration of MCM254 and MCM280 was 63, 6% and 72, 5%, respectively, and DRE was 18, 2%, which was significantly closer to the values in the healthy group compared with standard treatment. No recurrence of neoplasia was detected. Thus, the use of anise essential oil in the treatment of patients with benign vascular neoplasms of the nasal cavity brought the rate of endogenous poisoning as close as possible to that in the control group.

CONCLUSIONS. Summarising all the data of the study we can conclude that against the

background of traditional treatment of benign vascular lesions of the nasal cavity the combination of anise essential oil and Polidex resulted in greater suppression of POL reaction and reduction of the concentration of hydrophilic components of endotoxemia in blood plasma to control values. MDA content decreased under the influence of anise essential oil.

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