

EFFECTIVENESS OF USE OF POLIDEX DRUG IN THE BACKGROUND OF TRADITIONAL TREATMENT OF BENIGN VASCULAR FORMATIONS OF THE NASAL CAVITY

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Annotation: When treating patients with non-dangerous vascular formations in the nasal cavity against the background of traditional treatment after surgical removal of the formation, it is recommended to spray Polydex 3 times a day once into each nostril for 10 days. Patients were recommended to take Polydexa in the form of a spray in the form of endonasal injections 5 times a day in the first 5 days of the postoperative period and 3 times a day in the next 5 days, for a total course of 10 days. care.

Key words: Polydexa, nasal cavity, safe vascular derivatives, angioblasts.

Introduction.

Among all safe derivatives found in humans, vascular derivatives account for 1-7%. In 60-80% of cases, these derivatives are located in the head area. Although the nasal cavity is an unusual location for hemangiomas, its share among all formations is 2-3%, and among preserved formations - 7%. Hemangioma occurs in all age groups, where several peaks can be identified: among them, women of reproductive age are more common in children and adolescents, and in the group over 40 years of age an equal distribution is observed. Hemangiomas can affect almost all organs and tissues of the body, but in most cases, the skin, subcutaneous fat layer, and mucous membranes of the mouth and nasal cavity are considered to be the site of angiomatous formations [1, 4, 6].

P. Laeken writes about the nature of hemangiomas and emphasizes that the proliferation of endothelial cells characteristic of angiomas distinguishes these formations from varicose veins and aneurysms. These opinions are supported by a number of authors [2, 7].

Most hemangiomas are malformations of the hamartoma type, a small number are true blastomas, but the authors note that regardless of the origin, angiomas are characterized by vascular growth and budding, and the formation of new branches can be observed. The authors believe that true blood vessel derivatives are difficult to distinguish from the above-mentioned derived derivatives and propose to consider them together [2, 9, 15].

Hemangiomas are real formations, their development and growth are associated with intensive proliferation of angiogenic elements (angioblasts, underdeveloped components of the vascular wall) present in the tissue

and undoubtedly persisting in the early stages of embryonic development. Microscopic examination of hemangiomas reveals proliferation of endothelial cells, and vascular malformations are explained by flattening of the endothelium. The high mitotic activity of derived cells is recognized by many authors, and the possibility of spontaneous regression of hemangiomas is also noted, which is fully consistent with the derivative nature of the disease [3, 8, 9].

The symptoms of nasopharyngeal hemangioma in the early stages of development have not been well studied; the diagnostic value of a number of methods that have proven themselves in the study of other derivatives has not been determined; there are no clear recommendations for surgical treatment; the possibilities of using the therapeutic effects of these derivatives in combined and combined forms have not been studied [5, 10, 12].

It can be assumed in advance that the postoperative period in such patients differs in several ways. The most important of these aspects is the risk of intense and profuse bleeding in the early postoperative period. Reducing them to a minimum level is very problematic or causes certain difficulties [11, 13, 14].

Unfortunately, the recurrence rate of hemangiomas can reach 15%. The problem of vascular formations of the ENT organs is considered very relevant, and its solution is of great practical importance.

Research methods.

Under our control were 30 patients with preserved vascular formations of the nasal cavity (PVFNC), who applied to the department of otorhinolaryngology of the multidisciplinary clinic of Samarkand State Medical University. Among the patients included in the study, there were 12 women and 18 men aged from 18 to 45 years, but the vast majority of patients in 47 cases (51.8%) had the disease at the age of 18-45 years, in the relative majority - 50 (31.2%) the disease developed before the age of 30. During the study, patients underwent general clinical examinations (external otorhinolaryngological examination, palpation, blood pressure measurement, general blood test, general urinalysis), examination of ENT organs, endoscopic examination, biochemical examination, study of immunoglobulins in nasal secretions, pusher and transport. The function included examination, histological examination (of surgical material), instrumental and statistical research methods.

Research results:

Insufficiently satisfactory results of blood pressure in patients with benign vascular tumors of the nasal cavity encourage the improvement of generally accepted approaches to the treatment of this pathology. In addition to traditional methods, patients were treated with a combination drug Polydex (15 ml), consisting of 1 g of neomycin sulfate (650,000 IU), polymyxin V sulfate (1,000,000 IU), dexamethasone sodium metasulfobenzoate (0.025 g) and phenylephrine hydrochloride (0.250 g) included in the complex of treatment of safe vascular tumors of the nasal cavity.

The drug Polydexa in the form of a spray is prescribed to patients in the postoperative period endonasally 3 times a day for the first 5 days and 2 times a day for the next 5 days with a 10-day course of therapy.

The choice of anesthesia method and type of surgical intervention was carried out in the same way as in the group of patients treated with traditional methods. The tumor was removed using the endonasal method in all 30 patients, of which 26 (86.7%) had local anesthesia, and the remaining 7 (23.3%) had general endotracheal anesthesia.

Table 1.

Clinical symptoms in patients of group I (BP + polydex) before and after treatment

No	Clinical sign	Before treatment N=25 n (%)	7th day of treatment N=25 n (%)	14th day of treatment N=25 n (%)	21st day of treatment N=25 n (%)
1.	Difficulty breathing through the nose	24 (80,0 %)	10 (33,3 %)	3* (10,0%)	1** (3,3 %)
2.	Pathological nasal discharge	16 (53,3 %)	5 (16,7 %)	2 (6,7 %)	0* (0 %)
3.	Headache	12 (40,0 %)	4 (13,3 %)	1* (3,3 %)	0 (0 %)
4.	Bleeding from the nose	24 (80,0 %)	7 (23,3 %)	3 (10,0%)	1* (3,3%)
5.	Sensation of a foreign body in the nose	11 (36,7%)	4 (13,3%)	1* (3,3 %)	0 (0%)
6.	Impaired sense of smell	14 (46,7%)	5 (16,7%)	2 (6,7 %)	0* (0 %)
7.	General intoxication	30 (100.0 %)	23 (76,7%)	16* (53,3 %)	5** (16,7%)
<p>Note: *-$p < 0.05$, **- $p < 0.01$, ***- $p < 0.001$. <i>Statistical testing is not possible due to missing observations. To compare variables, χ^2 and Fisher's test were used.</i></p>					

At the end of treatment, compared with patients receiving BP (comparison group), patients receiving the drug had faster healing of the wound surface, relatively faster healing of the surgical wound, improved nasal breathing, and decreased headaches. Polydexa. Table 3.3 shows the effectiveness of Polydex against the background of blood pressure according to clinical signs.

Signs of the inflammatory process were detected in 30 (90.9%) patients before treatment and in 4 (12.1%) patients after treatment. After endoscopy, a positive result was observed in 24 (72.7%) of 26 (78.8%) patients in group I.

Significant changes in clinical symptoms were observed after 7 days of treatment in patients receiving combination treatment with Polydexa. In particular, 10 people (33.3%) had a runny nose, 5 (16.7%) had mixed blood and mucopurulent discharge, 4 (13.3%) had a headache, 7 (23.3%) had a 3%) - nosebleeds, 5 (16.7%) - impaired sense of smell, 23 (76.7%) patients had symptoms of general intoxication.

By the 21st day, 1 patient (3.3%) of the patients receiving combined treatment with Polydexa had nasal congestion, discharge of blood and mucopurulent secretion, impaired sense of smell, headache did not bother the patients. Moreover, nosebleeds were noted in only 1 (3.3%) patient. Signs of general intoxication were observed in 5 (16.7%) patients. In this group, signs of the inflammatory process were detected in 19 (63.3%) patients before treatment and in 1 (3.3%) patient on the 21st day after treatment.

16 (53.3%) patients (BP+Polydex) underwent CT and 8 (30.0%) underwent MRI. According to these methods, satisfactory treatment results were observed in 26 (86.7%) patients.

After combined treatment with Polydexa, normal BD microbiocenosis was recorded in 23 (76.7%) patients. In 1 (3.3%) patient, reaerobic flora and microbial association were observed, and in 1 (3.3%) patient, fungal growth was observed, this condition indicates a significant effect of the drug. After the drug was prescribed, staphylococcus disappeared both in monoculture and in association with infectious agents. The drug Polydexa did not show a positive result against microorganisms such as Klebsiella and actinomycetes.

BP reduced the level of MDA in the blood serum by 28.0%, and the use of Polydexa reduced the level of MDA by 39.1% in patients of group I, but it was slightly higher than the average value in the control group.

It should be noted that in patients of group II receiving BP, the activity of catalase in the blood serum increased by 7.14%, and the use of the drug Polydex increased this figure by 46.7% ($R < 0.001$).

After treatment with Polydexa, the MDA/CA ratio decreased by 53.5% (with BP - by 30.8%). The use of Polydexa against the background of traditional treatment significantly reduced the level of average mass molecules in the blood serum and showed a significant difference compared to the results of patients.

Table 2.

Indicators of endogenous intoxication in patients (BP + polydex).

Indicators	Before treatment (n=25)	7th day of treatment (n=25)	14th day of treatment (n=25)	21st day of treatment (n=25)
MDA, $\mu\text{mol/l}$	6,49 \pm 1,51	5,61 \pm 1,13	4,58 \pm 1,18**	3,95 \pm 1,14**
CA, $\mu\text{kat/sec}\cdot\text{l}$	0,27 \pm 0,06	0,39 \pm 0,11*	0,47 \pm 0,18**	0,68 \pm 0,21**
MAM ₂₅₄ , c.s.	0,50 \pm 0,06	0,45 \pm 0,08	0,38 \pm 0,09**	0,31 \pm 0,08**
MAM ₂₈₀ , c.s.	0,43 \pm 0,05	0,38 \pm 0,06	0,32 \pm 0,04**	0,29 \pm 0,05**
PSC, c.s.	0,84 \pm 0,13	0,99 \pm 0,10	1,06 \pm 0,13**	1,13 \pm 0,11**
MDA/CA, c.s.	24,0 \pm 5,2	14,32 \pm 1,71*	10,0 \pm 1,58**	5,83 \pm 0,89**

*Note: *- $p < 0.05$, **- $p < 0.01$, Wilcoxon test was used to compare groups of variables.*

After BP, the concentration of MAM254 and MAM280 decreased by 13.7% and 11.1%, respectively - 29.4% and -29.4% and decreased by 28.8% ($R < 0.05$). After using Polydexa, the PSC increased by 4.39% compared to the same indicator for BP, which indirectly indicates a slowdown in protein degradation processes. In addition, improvement in endogenous intoxication indicators was observed in their patients significantly faster than in patients in the comparison group who received only BP.

Tumor recurrence in BD was observed in 4 (16.0%) patients in this group.

We give an example of observation of patients receiving Polydexa against the background of blood pressure. Extract from the medical history No. 1088/75.

Clinical observation. Patient D., 31 years old, applied in May 2020 with complaints of difficulty breathing through the nose, frequent bleeding from the right side of the nose, anosmia, and dry mouth.

The above-mentioned signs will be recorded from February 2020. From the medical history it is known that the first bleeding occurred after picking the nose, blood pressure at that time was above 120/80 mm Hg. Bleeding was stopped with a cotton swab moistened with a 3% hydrogen peroxide solution. The

patient said that the intensity and duration of nosebleeds increased each time. An otolaryngologist performed an endoscopic examination of the nasal cavity on an outpatient basis and discovered a polyp-shaped tumor on the right side of the nose, which began to bleed when touched. After the parameters of the hemostasis system and the level of hemoglobin in the blood decreased to average critical values, the patient was hospitalized in the ENT department of the 1st clinic of SamMI. According to the conclusion of MSCT of the nose and nasal cavities, in the right part of the nasal cavity, in the area of the anterior venous-arterial weave, it grew from the middle part of the nasal septum, with a wide base, size 1.9x2.4 cm, dark red color, smooth surface, a round formation with clear contours is determined. The tumor biopsy was accompanied by severe bleeding. According to histological examination (No. 1998-08, bleeding angiomatous polyp), the tumor consists of densely located small capillaries (Fig. 3.3).

CT scan: volume-infiltrative changes in the right half of the nasal cavity.

Complete blood count: Hb - 80; erythrocyte - 3.0; RK - 0.9; leukocytes - 10.8; Erythrocyte sedimentation rate - 23 mm/s; Blood clotting according to Sukharev: beginning - 2.4; finish - 3.8; platelets - 188; eoz. - 6; core with nitrate rod - 5; segmented core - 82; lymphocytes - 53; mono. - 11.

ECG: Without pathology.

Biochemical indicators of endogenous intoxication at the time of admission: MDA - 6.52 $\mu\text{mol/l}$, Catalase - 0.28 $\mu\text{kat/sec}\cdot\text{l}$, MAM254 - 0.50 c.s., MAM280 - 0.44 c.s., PSC - 0.88 c.s., MDA/CA - 23,850 c.s.

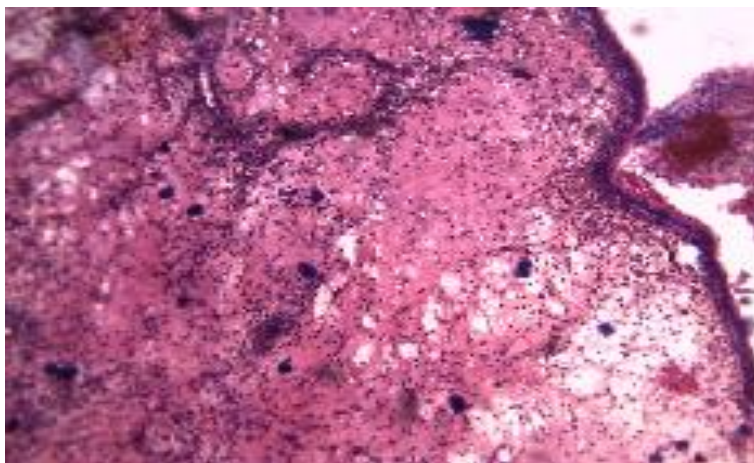


Figure 1. Bleeding polyp of the nasal septum (angiomatosis), stained with hematoxylin-eosin.

The department performed an operation to remove the product with bleeding under local anesthesia. The surgical wound was treated with a coagulant. After stopping the bleeding, anterior tamponade was performed with Polydex spray. On the 2-3rd day after the operation, no bleeding was observed during bandaging; the nasal cavity was treated with Polydex spray. Nasal breathing was restored, the patient was discharged in satisfactory condition.

The postoperative period was satisfactory. On the day of discharge, microbiological analysis of the secretions was negative. On the 6th day after surgery, the patient responded satisfactorily.

After 1 month, microbiological analysis of the secretion showed a negative result.

Biochemical study: MDA - 4.649 $\mu\text{mol/l}$, Catalase - 0.492 $\mu\text{kat/sec}\cdot\text{l}$, MAM254 - 0.355 c.s., MAM280 - 0.317 c.s., PSC - 0.896 c.s., MDA/CA - 9505 c.s.

To summarize the above, we emphasize that Polydexa has a therapeutic and prophylactic effect and is well administered. However, some biochemical (MSM, MDA, CA) indicators and expected results were not achieved in relation to the complete restoration of normal nasal function, 15.4% had pathological nasal

discharge, 7.7% had headache, 11.5% had - some symptoms, such as difficulty in nasal breathing; 11.5% experienced nosebleeds. After treatment with Polydexa, the MDA/CA ratio decreased by 53.5% (with BP - by 30.8%).

The use of the drug Polydexa significantly reduced the level of molecules of average weight in the blood serum compared to blood pressure and showed a significant difference compared with the results of patients in group I: the concentrations of MAM254 and MAM280 as a result of the use of Polydexa were 29.4% and 28%, respectively, decreased by 0.8% ($R_1 < 0.05$). After using Polydexa, the PSC increased by 4.39% compared to the same indicator for BP, which indirectly indicates a slowdown in the processes of protein degradation.

Recurrence of nasal cavity tumors was noted in 4 (16.0%) patients in this group.

Conclusions

As can be seen from the above, additional research is needed in the treatment of patients with benign vascular tumors of the nasal cavity in order to maximize the overall condition and clinical symptoms, as well as restore biochemical parameters to normal values. After 6 months, during a follow-up examination, patients complained of dry mucous membranes and sometimes nosebleeds.

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