RESULTS OF MEDICATION TREATMENT OF SKIN HAEMANGIOMAS AROUND THE EYE IN CHILDREN UNDER 1 YEAR OLD

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https://doi.org/10.5281/zenodo.21023096

Abstract. This article describes the course, clinical features, prevalence, modern diagnosis, classification and modern treatment methods of periocular cutaneous hemangioma in children, as well as the results of drug treatment. The study analyzed the results of drug treatment of 34 patients treated on an outpatient basis between 2022 and 2026. The results of treatment were compared, taking into account the period of first referral of children during the breastfeeding period.

Keywords. Hemangioma, children, propranolol, periorbital, USE dopplerography.

Introduction. Haemangioma is a benign tumour that develops from benign blood vessels, usually observed in the first 3 weeks of a child's life as a red spot, characterised by rapid growth, darkening, and invasion into surrounding tissues. During the growth period, the haemangioma changes colour, consistency, and shape of the tissue, leading to a range of complications such as cosmetic defects and functional disorders of varying severity. A haemangioma located on exposed areas of the skin may be accompanied by complications such as wounds, suppuration, secondary infection, and bleeding. The overall incidence rate among newborns is 10-15%, with 70-80% observed in the head and neck area. In girls, it occurs 3.5 times more often than in boys. Haemangiomas located on the face cause issues such as dysmorphophobia, cosmetic defects, and even lead to the patient's isolation from society.

Objective of the study: To investigate the course of the disease and the outcomes of pharmacological treatment in infants with cutaneous haemangioma located in the periorbital area.

Materials and methods of the study. The scientific work was conducted in private clinics of the "NG medical clinic center" in the city of Namangan during the period from 2022 to 2026. The scientific research was dedicated to the treatment of haemangiomas located on the skin around the eye area in infants and the use of propranolol in drug therapy.

During the study, 34 infants were examined, all of whom were diagnosed with a haemangioma of the skin around the eyes, and treatment was administered with the selection of a medication regimen depending on the stage of haemangioma development. The age of the patients ranged from 40 days to 2 years. 78.3% of the examined patients were girls, 21.7% were boys (Table 1).

Table 1
Distribution by age and sex of infantile haemangiomas of the skin around the eyes.

Age Group	Number of Patients			Frequency (%)
	boy	girl	total	
Period 0-3 months	1	3	4	11,8±4.9
Period 3-6 months	1	6	7	20,6±3,9

Period 6-9 months	3	8	11	32,3±3,2
Period 9-12 months	3	9	12	35,3±2,8*
Жами:	**8 (23,5)**	**26 (76,5)**	**34 (100)**	**100**

* P < 0.05 compared to the control group

All 34 patients with infantile haemangioma of the periorbital skin received treatment with a beta-blocker (propranolol). The main criterion for prescribing the medication was the patient's body weight, and the drugs were administered in doses of 1-2 mg/kg under the supervision of blood pressure and heart rate after examination by a paediatrician and a paediatric cardiologist.

Table 2

Location of haemangiomas in patients.

Location	Quantity	%
on the upper eyelid	13	38,2±3,4*
on the lower eyelid	7	20,6±5,1
on both eyelids	5	14,7±4,4
Multiple locations	9	26,5±1,7
Total	34	100,0

* P < 0.05 compared to the control group

Before the start of treatment, all patients underwent an ultrasound Doppler examination of the haemangioma, during which its size, type of blood flow in the haemangioma (arterial, venous, capillary, mixed), and blood flow velocity were determined.

Table 3

Results of beta-blocker (propranolol) treatment in patients with infantile haemangioma of the periorbital skin.

Results	Before 6 months	After 6 months
Good	47%	30%
Satisfactory	42%	25%
Unsatisfactory	11%	45%

The treatment course was conducted over 2 months and continued for 6-12 months after receiving positive results in the dynamics of repeated Doppler ultrasound examinations. Before and during treatment, monitoring of the patient's cardiovascular function was conducted, including methods such as ECG, heart rate measurement, blood pressure monitoring, and echocardiography. The sick children were under the supervision of a cardiologist. The medical procedures were conducted on a 100% outpatient basis.

The effectiveness of haemangioma treatment was assessed by comparing visual images before and after treatment (photographs), as well as the results of follow-up ultrasound Doppler studies with the results of previous examinations.

			
First visit (before treatment begins)	Three months after medication treatment	Six months after medication treatment	Ten months after medication treatment

The effectiveness of drug treatment is assessed once a month through Doppler ultrasound examination, depending on the size of the dermis and changes in blood flow velocity.

Venous blood flow before treatment was 8.6±1.1 cm/sec, after treatment — 1.0±0.1 cm/sec ($R < 0.05$); in mixed haemangiomas — 18.7±2.2 cm/sec before treatment and 2.1±0.1 cm/sec after treatment ($R < 0.05$).

Conclusion. The earlier pharmacological treatment is initiated for infants with periorbital cutaneous haemangioma, the higher the effectiveness and results of the treatment. Colour Doppler ultrasound helps determine the size of the haemangioma, the type of blood flow (arterial, venous, capillary, and mixed), and the blood flow velocity. These data are important for predicting the effectiveness of drug treatment for the haemangioma, assessing its efficacy, and determining the treatment strategy. Additionally, repeated ultrasound Doppler studies help to continue the treatment strategy based on changes in the aforementioned parameters of the haemangioma.

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