

CONSERVATIVE TREATMENT OF CAVERNOUS HEMANGIOMA ON EYELIDS

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ABSTRACT

Cavernous Hemangiomas on the eyelids are congenital benign tumors in children. They vary in size and shape, and present medical and cosmetic problems. Different methods of treatment have been used with different outcomes, but treatment with intralesional corticosteroids remain among the most commonly used.

A 3-month-old boy with hemangioma on the right upper eyelid is presented. He was successfully treated with repeated injection of betamethasone (celestone) in the lesion for a period of four years. At the end of the third year, the aesthetic result and regression of the tumor were significant.

This case and our experience show that intralesional steroid is an efficient therapy for eyelid hemangioma even during spontaneous regression.

Keywords: hemangioma; corticosteroids; intralesional therapy

Cavernous hemangioma on the eyelid is the most common congenital benign tumor in children. It is characterized by a unique history of growth in early infancy. In some cases this proliferative phase is followed by spontaneous involution. However, treatment is necessary in 10% to 20% of cases because of their location, size, or behavior of the tumor. Different methods, including cryotherapy, surgical excision, interferons and laser therapy have been used with different outcomes, but applying high dose systemic or intralesional injection of steroid is usually the first line treatment. [1,4]

The aim of this report is to assess the clinical effect of intralesional application of corticosteroids in treatment of hemangioma on the eyelids.

Case report:

A 3-month-old boy with cavernous hemangioma on the eyelid was presented to the ophthalmological outpatient clinic. Physical examination revealed a large hemangioma on the right upper eyelid measuring 35x25mm and a few smaller satellite hemangiomas, which caused mechanical ptosis of the same eyelid. (Figure 1)



Figure 1: Hemangioma before treatment

Treatment was initiated with 4mg/1ml of Betamethasone (Celeston) injected into the central and satellite lesions every six months, for a period of four years, with a close follow-up and photo documentation. The procedure required general anesthesia and repeated injections of long acting steroid in the tumor. Intralesional application aimed to locate the drug effect and to minimize the side systemic effects. (Figure 2)



Figure 2: The procedure of intralesional injection of corticosteroid

The involution of tumor lesions started at the end of second year and at the end of third year the aesthetic result and regression were significant. (Figure 3)



Figure 3: Result after two years of treatment

DISCUSSION:

Hemangioma is a benign tumor in infancy. The hallmark of this lesion is a rapid growth during the neonatal period. Most hemangiomas do not require treatment, as these resolve spontaneously. Batta et al. reported that among 121 infants with early hemangioma, about 40% cleared completely or left a minimal residual sign at the age of 1 year without treatment. Nevertheless, some complications or aesthetic concerns are indications for therapy. A number of treatment modalities – cryotherapy, radiation, laser therapy, corticosteroids - have been proposed for treating hemangioma, but the choice of treatment depend on a careful assessment of every case.[4,6,8]

Corticosteroid therapy (intralesional application) has been proposed as the most efficient for cutaneous hemangioma, particularly for those involving the eyelids [2,3,5].

Reported complications including occlusion of the central retinal artery, eyelid necrosis and optic nerve neuropathy are rare.[2]

We injected Betamethasone (Celeston) into the central and satellite lesions every six months, for a period of four years. During this period no side effects were observed.

The therapy was initiated at the age of 3 months. After one year of treatment the size of the tumor was unchanged, therefore the lesion would not regress without therapy.

As it is difficult to predict accurately the duration of growth and the rate of spontaneous involution, the treatment should be initiated as early as possible, and the infant should be seen frequently.



Figure 4: Result after three years of treatment

This case clearly demonstrates the positive results of using intralesional steroids. (Figure 4) The ophthalmic literature shows that local application is generally preferred over the oral route for eyelid lesions.[7]

In conclusion, the best approach in management of hemangioma should be individualized according to the age of patient, location, size of the lesion, and presence of complications. Once the decision to treat hemangioma is made, the main issues are the choice of the most appropriate time and method of treatment. According to the literature and our experience, the corticosteroids remain the mainstay of therapy for massive eyelid hemangioma. In addition, early steroid therapy is associated with better results. [8]

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EPIDEMIOLOGICAL STUDY OF EYE INJURY IN PLEVEN, BULGARIA

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SUMMARY:

Aim: To determine some of the epidemiological characteristics of eye injuries in the region of Pleven, Bulgaria.

Materials and Methods: We studied the medical records of Eye Clinic – Pleven covering a period of 3 years (2004 – 2006).

Results: Out of 318 eyes with trauma, the distribution of causes was as follows: 154 lacerations (both of eyeball and apparatus accessories), 63 contusions, 43 foreign bodies, 40 eye burns (23 chemical and 17 thermal) and 18 penetrating injuries.

Keywords: eye injury, ocular trauma, visual acuity

INTRODUCTION:

Eye injury is a major cause for monocular visual impairment and blindness throughout the world. Scientific reports suggest that there are at least half a million people monocularly blind because of ocular trauma worldwide [1]. Blindness and visual impairment as an outcome of the injury depend on the severity of the trauma and the timely applied treatment.

AIM:

To determine some of the epidemiological characteristics of eye injuries in the region of Pleven, Bulgaria.

MATERIALS AND METHODS:

We studied the medical records of Eye Clinic – Pleven covering a period of 3 years (2004 – 2006). A total of 4901 cases of patients admitted during that period were reviewed and in 304 cases (6.2 % of all admitted patients) an eye injury was found. In these cases information for gender, age, residence, type of injury and visual outcome was gathered. For visual impairment and blindness we used the definitions of World Health Organization (blindness – vision < 3/60 in the better eye, visual impairment – vision < 6/18 in the better eye). In all cases a full ophthalmological examination was performed. The visual acuity of the patients was measured on admission and on discharge with Monoyer vision chart and in the cases where that was not possible perception and projection of light was tested. Most patients with ocular traumata had surgery – light injuries with subconjunctival hemorrhage only were revised for scleral rupture while severe