CASE REPORT

TOTAL EYELID RECONSTRUCTION IN A PRIMARY IMMUNODEFICIENT WITH GIANT PYOGENIC GRANULOMA

Vijay Kumar N[1], Rajesh S. Powar[2], Chaitra L. P[3], Ridhi[4]

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ABSTRACT: Total upper and lower eyelid defect is usually secondary to the excision of malignant or benign tumours, trauma and burns. Reconstruction of this type of defect is important not only for the cosmetic result, but also for coverage of the cornea and prevent injury to eyeball. Pyogenic granuloma is usually preceded by the history of trauma to the eyelid. But reports of giant pyogenic granuloma of both upper and lower eyelid are rare. We present here a ten year old boy diagnosed primary immune deficient with a large fungating mass over both upper and lower eyelid, which was excised and total upper and lower eyelid defect was reconstructed with paramedian forehead flap. Histopathology revealed pyogenic granuloma. Post operatively child had good lid movements.

KEYWORDS: Primary immunodeficiency, Giant pyogenic granuloma, Eyelids.

INTRODUCTION: Pyogenic granuloma is a polypoid form of capillary hemangioma. The tumors may appear on either cutaneous or mucosal surfaces. Diagnosis can be made by history of surgery, trauma or inflammation and characteristic clinical appearance, but the definitive diagnosis is made by histopathologic findings. It is most often located on the head, neck, extremities, and upper trunk.[1] But in the eye it may be located on the eyelids, conjunctiva or rarely on the cornea. The primary immunodeficient boy with multiple other problems associated with the immunodeficiency. We here by describing a case of surgically treated giant pyogenic granuloma of the upper and lower eye lid, and the technique of reconstruction of the upper and lower eyelid skin by a paramedian forehead flap that allows the coverage of medium to large sized defects of this region with satisfactory aesthetic and functional outcome.

CASE REPORT: A 10 year old boy presented in a paediatric department with a multiple ulcers over the face and all over the body. He had a nodular fungating mass in the left upper and lower eyelid which was almost blocking his vision in the left eye (Fig. 1 and 2). These lesions started as small ulcers and gradually progressed. He also presented with cough with expectoration, on and off fever. He was admitted in PICU and treated symptomatically. He was evaluated thoroughly all routine investigations with the Immunoglobulin levels evaluated and was diagnosed to have immunodeficiency. He was stabilized and later he was referred to plastic surgery for the treatment of fungating mass of the left upper and lower eye lid. Child was assessed by the anesthetist and obtained fitness for the surgery. He underwent radical excision of the fungating mass from both upper and lower eyelid after which he had almost more than 75% defect of the eyelid. The defect in the eyelid was covered with the paramedian forehead flap with a small opening in the flap initially (Fig. 3). After 3 weeks the flap was divided and the upper and lower

eyelid was created. (Fig. 4). The flap was doing well and when he came for the follow up after 2 months even the movement in the lids were noted. (Fig. 5, 6 and 7). The histopathological examination of the mass showed features of pyogenic granuloma.

Fig. 1

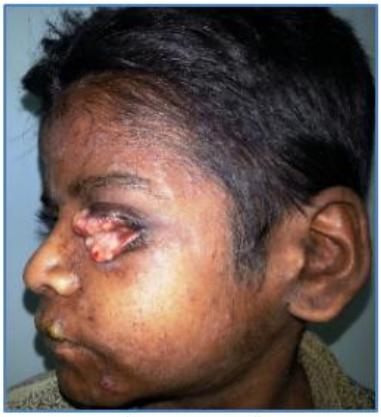

Fig. 2

Fig. 3

Fig. 4

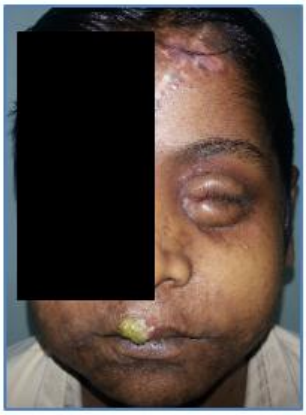

Fig. 5

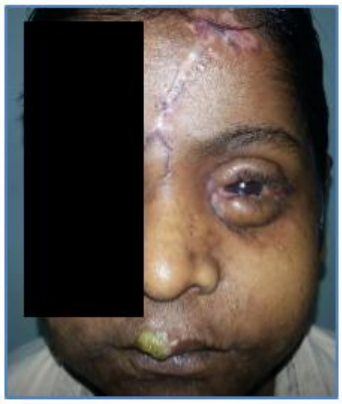

Fig. 6

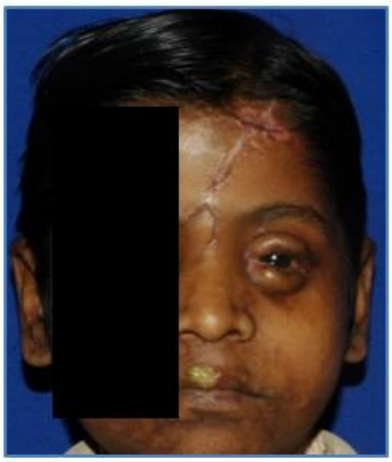

Fig. 7

DISCUSSION: Pyogenic granulomas develop rapidly and achieve their maximal size of several millimeters to a centimeter or more within a few weeks. Clinically, the well-established pyogenic granuloma is a polypoid, friable, purple-red, smooth-surfaced mass that bleeds easily and often becomes ulcerated. The lesions are usually painless but may be tender. On histopathological examination the basic lesion is a lobulated cellular hemangioma set in a fibromyxoid matrix. Each lobule of the hemangioma consists of a larger vessel, often with a muscular wall, surrounded by congeries of small capillaries. Stromal edema is usually prominent. Mitotic activity in endothelial cells and fibroblasts may be conspicuous. Most pyogenic granulomas are altered by secondary inflammatory changes.[1,2,3]

Numerous surgical techniques have been described with varying success for the correction of eyelid defects. The surgeon has to choose the procedure on a case-by-case basis taking into consideration the following criteria: mechanism of injury, comorbidities, and goals of surgery. In this study, we describe a unique case of total upper and lower eyelid reconstruction using a paramedian forehead flap technique. The forehead flap procedure achieved our aims of providing not only an aesthetic result, but also adequate soft tissue support for the eyeball.[4,5]

CONCLUSION: The paramedian forehead flap provides an aesthetically pleasing method of reconstruction and provides a simple and safe procedure. We propose this flap as the first option in the reconstruction of challenging defects encompassing both upper and lower eyelid.

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AUTHORS:

1. Vijay Kumar N.
2. Rajesh S. Powar
3. Chaitra L. P.
4. Ridhi

PARTICULARS OF CONTRIBUTORS:

1. Consultant, Department of Plastic Surgery and Ophthalmology, KLE Society Hospital and Medical Research Centre, Nehru Nagar, Belgaum.
2. Professor and HOD, Department of Plastic Surgery and Ophthalmology, KLE Society Hospital and Medical Research Centre, Nehru Nagar, Belgaum.
3. Assistant Professor, Department of Biochemistry, KLE Society Hospital and Medical Research Centre, Nehru Nagar, Belgaum.
4. Senior Resident, Department of Ophthalmology, KLE Society Hospital and Medical Research Centre, Nehru Nagar, Belgaum.

NAME ADDRESS EMAIL ID OF THE CORRESPONDING AUTHOR:

Dr. Vijay Kumar N,
784, BEML Layout,
2nd Stage, Rajarajeshwari Nagar,
Mysore-570022.
E-mail: viju_n2@yahoo.co.in

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