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TU LOUT * HOUSE	Ophthalmology MANAGEMENT OF ORBITAL CAPILLARY HAEMANGIOMA BY ORAL PROPRANOLOL
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ABSTRACT Purpose-To report the long term results of treatment of orbital capillary haemangioma by oral propranolol. Design-Interventional case report. Methods-A 2month old infant with orbital capillary haemangioma was treated with oral Propranolol (T. Inderal 1mg/kg/BW) 10mg(1/4-0-1/4) continued for 2wks and subsequently increasing the dose to 10mg(1/4-1/4-1/4) after monitoring for bradycardia. Results- Significant reduction in the size was noted in the 1 st follow up after 2wks and at 5wks follow up. No complications were observed. Conclusion- Oral Propranolol can be used as a first line agent in the treatment of capillary haemangioma.	
KEYWORDS : capillary haemangioma, propranolol	

INTRODUCTION-

Infantile hemangiomas are benign tumors that appear shortly after birth. They usually begin to involute spontaneously in early childhood. Periocular hemangiomas may cause vision loss secondary to amblyopia induced by astigmatism, ptosis, or globe displacement(1).

CASE REPORT-

An infant aged 2months presented with gradually progressive swelling of left upper eyelid since 1 month, not associated with fever/discharge from eye. On examination, vitals were stable. Ocular examination revealed soft bluish mass over the left upper eyelid which increased in size on crying. Pupillary reactions was normal. Rest of the ocular examination on left and right eye was normal.

At presentation



MRI revealed large intensely enhancing altered signal intensity lesion in the intra/extraconal space of the left orbit with multiple flow voids, globe displacement and encasement of optic nerve- A diagnosis of capillary hemangioma was made. After consulting paediatrician, under monitoring (2,3), baby was started on oral propranolol (1mg/kg/day)10mg 1/4-0-1/4, continued for 2wks and subsequently dose was increased to1.38mg/kg/day (1/4-1/4-1/4). Treatment with oral propranolol produced a rapid reduction in the size of hemangioma in 2weeks.



DISCUSSION-

The possible mechanisms on which propranolol works include

- inducing vasoconstriction.
- decreasing the expression of 2 proangiogenic factors, vascular endothelial growth factor and basic fibroblast growth factor, through the downregulation of the RAF- mitogen activated protein kinase pathway.
- triggering apoptosis of capillary endothelial cells.(4,5)

Potential adverse effects include bradycardia, hypotension, bronchospasm, and hypoglycemia.(1) However slow initiation is adviced and outpatient monitoring.

CONCLUSION

The early treatment with propranolol is effective in treating and preventing loss of visual acuity associated with periocular infantile hemangiomas.

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