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Short Communication

Periocular infantile hemangioma

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Infantile (capillary) hemangiomas are the most common benign tumors of the orbit in the children.[1] These lesions usually not present at birth, but appear within the first few weeks of life. Females are more commonly affected, with a female to male ratio of 3:2 to 5:1.[2]

They tend to enlarge during first 12 months and then begin to regress after the first year of life; 30% lesions usually regress by the age of three and approximately 70% of lesions resolve by the age of 7 years. The associated risk factors are female sex, premature birth, and chorionic villus sampling. The color of the lesions depends on the location of the lesion. Superficial hemangiomas, involving the skin appear bright red, soft mass with a dimpled texture and the subcutaneous lesions appears bluish. Hemangiomas located deeper within the orbit may present as a progressively enlarging mass without any overlying skin change. Magnetic resonance imaging (MRI) is the neuro-imaging of choice. It helps to distinguish infantile hemangiomas from other vascular malformations. Color Doppler ultrasound imaging is another reliable and inexpensive imaging tool for diagnosing these lesions, often showing numerous blood vessels within the mass and abundant blood flow. The most common site of the adenexal lesion is the superonasal quadrant of the orbit and the medial upper eyelid.

They may be associated with hemangiomas on other parts of the body. The usual systemic associations are PHACE syndrome,[3] Kassabach-Merritt syndrome[4] and diffuse neonatal hemangiomatosis. PHACE is an acronym for posterior fossa malformation, hemangiomas, arterial leasions, cardiac anomalies, eye anomalies. In Kassabach-Merritt syndrome, there is thrombocytopenia due to sequestration of platelets in vascular lesion.

Many lesions regress spontaneously. So, they are usually observed initially. The main concerns are amblyopia, strabismus, and anisometropia. If the lesion is not causing any severe refractive error or there are no chances of amblyopia, treatment can be deferred until it is clear that such complications may develop. The refractive correction and the amblyopia therapy are the prime medical interventions. For infantile hemangiomas that require therapy, β- blockers are the first- line treatment. β- blockers can be taken either topically or orally. Topical therapy over the lesion is good for small superficial lesions. Topical Timolol is applied as 0.5% gel twice daily until the lesions regress. Topical therapy has an advantage that they limited systemic adverse effects. Oral Propranolol is started as a dosage of 0.16 mg/kg and can be gradually increased to 2 mg/kg/day in three divided doses, in the absence of any complications.[5] Oral propranolol treats deeper lesions, although sometimes associated with even life-threatening hypotension, bradycardia, and hypoglycemia. So, always a pediatrician should be consulted before

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start of oral therapy. Before the use of β- blockers, steroids were treatment of choice.[6] Lesions that do not respond or inadequately respond to β- blockers may require treatment with steroids administration. They can be given either topically, by intralesional injection, or even orally. However, steroids by any route in infants may produce hypothalamic- pituitary adrenal axis suppression, growth retardation, and several other metabolic adverse effects. So, steroids should be administered as the last medical resort. Intralesional steroid injection can cause local skin necrosis, subcutaneous fat atrophy, and systemically can lead to a dreaded complication of retinal embolic vision loss. Surgical excision may be considered for growing lesions even refractory to steroids or the residual lesions that remain after involution.

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2. Conflict of Interest

None.

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