

HIGH-RISK SEGMENTAL INFANTILE HEMANGIOMA– ORAL PROPRANOLOL, THE DRUG OF CHOICE

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Infantile hemangioma is the most common tumor in infants. The early growth phase shortly after birth is a consequence of hyperplasia, mostly of endothelial cells. This proliferative phase is then followed by a slow involution over several years. Due to this biological behavior, most hemangiomas require no treatment at all. However, certain sites, such as the periorbital, oropharyngeal, preauricular or parotid regions require prompt and active treatment in order to prevent complications and long-term sequelae. Until recently corticosteroids have been considered the first line of treatment. A 4-month old female infant was referred for a segmental hemangioma covering the left side of her face and scalp with additional foci on the neck – at least two high-risk sites (Panel A). Due to the rapid growth of the tumor, her left eye was almost completely closed with a high risk of amblyopia. The parents refused the administration of systemic corticosteroids. After a thorough discussion of all other treatment options, we decided to start with oral propranolol. Before treatment the child was examined by a pediatric cardiologist, and ECG, blood pressure and heart rate were taken. The starting dose of oral propranolol was 1 mg/kg/d over the first week; then it was increased to 1 mg/kg every 12 h. Blood pressure and heart rate were monitored on a daily basis, then, after 2 weeks once weekly. After 4 weeks a significant involution of the hemangioma was seen. Six months later excellent regression was achieved (Panel B). There were no side effects. The dosage of propranolol was gradually reduced during the following month and finally withdrawn when she reached the age of 11 months. Residual superficial telangiectasias could be treated later with a vascular laser if necessary. With a proper selection of patients and adequate monitoring of effects and possible side effects (hypoglycemia, bradycardia, asthma, hypotension), the efficacy of propranolol seems to be higher in comparison to oral corticosteroids, with a very good safety profile. In fact, oral propranolol is given as the first drug in complicated hemangioma in the majority of Vascular Anomalies Centers.

Key words: Hemangioma ▪ Infant ▪ Propranolol

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