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Comparative Study Between Oral and Intralesional Injection of Beta Blocker in the Treatment of Infantile Capillary Hemangioma

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Abstract : Purpose: The aim of this study is to compare the clinical efficacy and side effects of oral versus intralesional propranolol treatment of infantile capillary hemangiomas in infants. Methods: The study enrolled 40 infants diagnosed with infantile capillary hemangiomas. Patients were divided into 2 groups: Group A (Non-invasive group) included 20 infants who received oral propranolol hydrochloride starting at a dose of 1 mg/kg/day BID, then increased to a max of 2 mg/kg/day BID gradually over 2 weeks for 3 months. Group B (Invasive group) included 20 infants who received intralesional propranolol injection at a dose of 1 mg/mL; the volume of the injected drug depended on the size of the lesion (0.2 mL injected per cm of lesion diameter), with a maximum volume of 1 mL for a lesion of 5 cm diameter under complete aseptic conditions in the operating theater. Results: At three months after initiating treatment, the circumferential size of the hemangioma showed a statistically significant decrease in both groups; in Group A from 3.66±2.89 cm to 1.56±1.26 cm with p-value <0.05 and in Group B from 2.99±2.73 cm to 1.32±1.18 cm with p-value <0.05. There is no statistically significant comparative difference between the two groups (p-value = 0.538 = insignificant). Regarding the complications of oral propranolol, one patient (5%) had bradycardia, and one patient (5%) had diarrhea. In the injection group, 20 patients (100%) had local edema, and one patient (5%) had a local infection. Conclusions: Both oral non-invasive and intralesional invasive propranolol are safely used to successfully treat and decrease the size of infantile hemangioma while showing no statistically comparative difference between both treatment techniques.

Keywords : hemangioma, oral beta blocker, intralesional beta blocker, infants
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