Noninvasive Management of Hemangioma and Vascular Malformation Using Intralesional Bleomycin Injection

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Abstract:

Background: Successful treatment of vascular anomalies represents a challenging problem despite using various treatments. Intralesional injection of bleomycin has been successfully used in treatment of macrocystic lymphatic malformations and hemangiomas, based specifically on a high sclerosing effect on vascular endothelium. Methods: In a prospective study of 75 patients, there were 47 women and 28 men. Their ages ranged from 3 to 35 years with a mean age of 14 years. The effectiveness of intralesional bleomycin injection in hemangiomas and vascular malformations was evaluated. Dosage regimens used were as follows: - In children younger than 1 year, the maximum dose per injection is limited to 0.5 to 1 mg/kg and varied according to the size of the lesion. - In children older than 1 year and adult, a dose of 1 to 15 mg was injected intralesionally per session. A single dose of 15 mg per session was never exceeded. The interval between each session was 3 to 4 weeks. Results: Complete resolution (cured) in 18 (24%) patients, marked improvement occurred in 35 (47%) patients, mild improvement in 14 (18.5%) patients, and no cure in 8 (10.5%) cases. Local complications were superficial ulceration in 5 patients and hyperpigmentation in 6 patients. Systemic complications were flu-like symptoms in 3 patients. None of the patients presented with toxic hematological effects or signs of pulmonary fibrosis and/or hypertension. Conclusions: Intralesional bleomycin injection is an effective and a safe method for treatment of hemangiomas and vascular malformations, decreasing the need for invasive primary surgery or systemic treatment in 71% of cases and decreasing the magnitude of secondary surgical procedures in cases with moderate results.

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