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Cherry Tuberous Hemangioma

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Introduction

Statistically, hemangiomas are vascular tumors that develop in approximately 2% to 10% of the population—most frequently in the first month of life. In most cases, the hemangioma appears as a single lesion on the face and/or neck. These vascular lesions have a well-known progression: beginning as a macula, they grow through a proliferation phase, regressing spontaneously in a high percentage of cases. However, when the location or size of the lesion interferes with vital functions or affects platelet concentrations resulting in consumption coagulopathy, therapeutic intervention is necessary. Interferon and steroidal therapy are two treatment options with obvious potential side effects. Intervention by treatment with the 595 nm pulse dye laser is also a viable option. Used early on, the laser treatment can be expected to eliminate the hemangioma completely.

The patient in this study is a young girl, first evaluated at two months of age with a vascular tumor (a strawberry type or tuberous hemangioma) on the right side of her face. This tuberous hemangioma appeared two weeks after birth and spread to multiple germinal centers with active growth. At six weeks, the upper lip had already been ulcerated twice, making therapeutic intervention necessary.

Method

The patient received 14 treatments with the Vbeam® Perfecta pulse dye laser at intervals of four to five weeks.

Sessions were conducted with intravenous sedation. Laser treatment parameters were 8 to 9.5 J/cm² energy at pulse durations of 1.5 to 3 ms, 30 ms, 20 ms delay, and 7 mm spot size. In the first three sessions, laser pulses were overlapped on the areas showing active growth. Vitropression (compression with laminate of glass) was also applied in the most overgrown zones in order to level the raised surface of the area during treatment without bleaching the hemangioma. Care was taken to ensure the redness of the lesion was still visible to the physician and the treating laser.

In five of the laser treatments, a preparation of 20 mg/ml triamcinolone acetate was applied to the overgrowth areas on the nose and lip of the right side of the face.

Results

This course of treatment achieved a 100% clearance of the hemangioma. The patient has only a small scar on the upper lip that corresponds to the areas that suffered the two episodes of spontaneous ulceration. Before ending the laser treatment, the right side of the nose was more elevated than the left side—a defect that corrected itself as the girl grew and which is not noticeable at present. The girl's parents, both of whom are doctors, were surprised at the total elimination of the hemangioma, the excellent final aesthetic result, and the fact that surgery was avoided.



Discussion

This case presents the use of the Vbeam Perfecta 595 nm pulse dye laser to treat a very large hemangioma that was beginning to proliferate with many centers of growth. The Vbeam acts on the capillaries of the neof ormation and destroys them, helping to ensure that these vascular lesions do not continue to proliferate. Because this therapy is limited by the depth of the pulse dye laser's wavelength penetration, early intervention increases the likelihood of a complete clearance of the lesion. In the germinal centers with active growth, the application of triamcinolone intralesionally is a useful adjunct to the laser treatments. The laser treatment should be conducted with the application of overlapping pulses and vitropression, as demonstrated in this case.

References

1. Stier MF. Laser treatment of pediatric vascular lesions: Port wine stains and hemangiomas. *J Am Acad Dermatol*, 2008; 58:261-85.
2. David LR, Malek M. Efficacy of pulse dye laser therapy for the treatment of ulcerated hemangiomas. A review of 78 Patients. *Br J Plast Surg*, 2003; 56:317-27.
3. Smith S, Buckingham E. Management of cutaneous juvenile hemangioma. *Facial Plast Surg*, 2008; 24:50-64.
4. Mulliken J, Young A. Vascular birthmarks: hemangiomas and malformations. Philadelphia, WB Saunders, 1988.
5. Marler J, Mulliken J. Vascular anomalies: classification, diagnosis and natural history. *Facial Plast Surg Clin Nort Am.*, 2001; 9:495-504.



Figure 1. Patient at age three months.



Figure 2. Patient at age 18 months.



Figure 3. Patient at age four.

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