

Recurrence of cystic lymphangioma of the forearm in a pediatric patient

De La O-Garcia Alondra¹, Barocio-Jauregui Daniel², Valenzuela-Aviles Elizabeth³, Romero-Garcia Ivan⁴

¹Second-year resident in general surgery. Dr. Fernando Ocaranza General Hospital, ISSSTE Hermosillo, Sonora

²Third-year resident in general surgery. Dr. Fernando Ocaranza General Hospital, ISSSTE Hermosillo, Sonora

³Second-year resident in angiology. Ignacio Zaragoza General Regional Hospital, Issste Mexico City

⁴Member of Smacve, Member of The Mexican Council of Angiology, Vascular and Endovascular Surgery

ABSTRACT: Lymphangioma is a rare, benign neoplasm of vascular origin that presents during childhood and can appear anywhere, with the capacity to spread to adjacent organs. This report presents the case of a 7-year-old male with lymphangioma recurrence one month after resection. Surgical treatment was performed, followed by conservative management. The patient had a satisfactory outcome and was discharged from the angiology service three months later without recurrence.

KEYWORDS: cystic lymphangioma, forearm, pediatric patient, recurrence, surgical resection, sclerotherapy

INTRODUCTION

Lymphangioma is a rare, benign, congenital malformation that can appear anywhere on the skin and mucous membranes. They are histologically benign; however, they can spread to adjacent organs and cause life-threatening complications.

They represent 4% of all vascular tumors and 25% of pediatric vascular tumors; 90% develop at birth. They are classified as cavernous, circumscribed, and cystic.

Diagnosis is based on clinical history and physical examination; however, the confirmatory method is biopsy.

Treatment is challenging and involves surgical excision and wide local resection of all affected channels to prevent recurrence, which is reported in up to 23% of cases. For superficial lymphangiomas, treatments have been used with CO₂, electrocautery, cryotherapy, sclerotherapy, bleomycin, and absolute alcohol.

CLINICAL CASE

A 7-year-old male with no significant medical history presented with a swelling in his right forearm that began at birth. A biopsy was performed, which was histopathologically reported as lymphangioma. The lymphangioma was subsequently resected. One month after the surgery, he developed swelling on the anterior aspect of his right forearm, accompanied by pain that worsened with movement and gradually increased in size.

On focused physical examination, the right forearm showed a scar from a previous surgery with swelling, a non-mobile, fixed, normothermic mass extending from the thenar region to the proximal third of the forearm, adherent to deep tissues, and at a normal temperature. The circumference was 3 cm greater than that of the contralateral arm. Muscle strength was preserved, pulses were 3/3, and triphasic flow was observed on linear Doppler ultrasound. Capillary refill was 2 seconds. Fig. 1



FIG. 1. Recurrence of lymphangioma in the right forearm

An S-shaped incision is made from the thenar eminence to the medial condyle. The tissue is dissected layer by layer, the median nerve is located, dissected, and retracted, and a 20 x 8 cm specimen is removed.

Methylene blue is administered to evaluate areas of lymphatic leakage. Active leakage is observed, and a transfixing suture is placed with 3-0 Vicryl. Absolute alcohol is then applied and left for 5 minutes. A negative pressure system is applied to prevent compartment syndrome due to inflammation. Seven days later, the VAC system was removed, and sclerotherapy was performed with 3% aethoxylol in the hypothenar region and methylene blue in areas of hypopigmentation. The wound was closed with Vicryl 1, Monocryl 4-0, and Dermabond. The patient was discharged 48 hours postoperatively (Fig. 2).

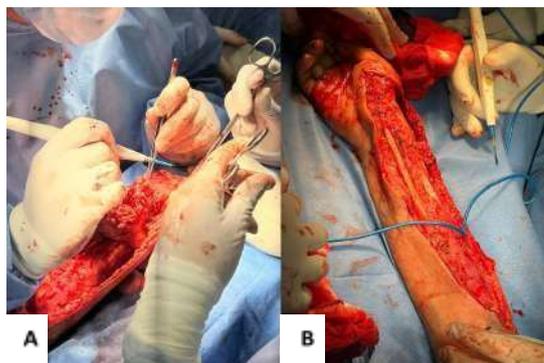


FIG. 2 a) Lymphangioma resection showing a tumor adherent to the surrounding tissues. b) Wound following lymphangioma resection

The patient attended three follow-up appointments: at 15 days, 1 month, and 3 months. During these appointments, a decrease in right arm edema was observed, along with proper finger mobilization and opposition, no retraction due to scarring, and adequate wound approximation with no exudate drainage. The patient was discharged at 3 months (Fig. 3B).

DISCUSSION

Lymphangioma is a rare pathology with a high risk of recurrence. This case is presented due to the complexity of its resection and the different therapeutic options available in conservative treatment. The need for standardization in the medical-surgical management of this pathology is also highlighted.



FIG. 3 a) Placement of methylene blue in wound to evaluate lymph drainage areas (arrow) which do not pigment b) Wound after 1 week of surgical intervention.



REFERENCES

1. Miceli A, Stewart KM. Lymphangioma. 2023 Aug 8. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2023 Jan-. PMID: 29261940
2. Okazaki, T., Iwatani, S., Yanai, T., Kobayashi, H., Kato, Y., Marusasa, T., Lane, G. J., & Yamataka, A. (2007). Treatment of lymphangioma in children: our experience of 128 cases. *Journal of Pediatric Surgery*, 42(2), 386–389. <https://doi.org/10.1016/j.jpedsurg.2006.10.012>
3. Impellizzeri, P., Romeo, C., Borruto, F. A., Granata, F., Scalfari, G., Saverio De Ponte, F., & Longo, M. (2010). Sclerotherapy for cervical cystic lymphatic malformations in children. Our experience with computed tomography-guided 98% sterile ethanol insertion and a review of the literature. *Journal of Pediatric Surgery*, 45(12), 2473–2478. <https://doi.org/10.1016/j.jpedsurg.2010.07.023>

Cite this Article: De La O-Garcia, A., Barocio-Jauregui, D., Valenzuela-Aviles, E., Romero-Garcia, I. (2026). Recurrence of cystic lymphangioma of the forearm in a pediatric patient. International Journal of Current Science Research and Review, 9(2), pp. 795-797. DOI: <https://doi.org/10.47191/ijcsrr/V9-i2-23>