

# **Clinical Characteristics and Complications in Patients with Complex Vascular Anomalies**

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## **Background/Objective:**

Vascular anomalies are rare complications of development, with some forms affecting less than 1% of the population. In addition to visible manifestations, they may cause pain, swelling, bleeding, thrombosis, and infection. These conditions often require more than one field of medical expertise, so incorporating multidisciplinary care is essential for optimizing management strategies. In an effort to better describe a cohort of these patients requiring complex interventions and understand the spectrum of care they need, we captured demographic, clinical, and quality-of-life data to serve as a launching point for future studies.

## **Methods:**

We designed a RedCap database and conducted a retrospective chart review of 100 patients who presented at the Vascular Lesions Clinic (VLC) at Riley Children's Hospital from May 2020 to May 2022. Demographic, clinical, and quality-of-life data using the OVAMA scale was obtained from Cerner and captured on RedCap. Excel and RedCap software were used to characterize this patient population.

## **Results:**

The majority of patients had diagnoses of venous malformations and lymphatic malformations. These anomalies showed no male or female predominance and most lesions were segmental. Sclerotherapy was the most common intervention, with venous malformations receiving a higher median number of treatments than lymphatic malformations. Lymphatic malformations were associated with lower appearance satisfaction and a younger median age at the time of the VLC visit than venous malformations. Older age, larger lesion size, female sex, and lesion location on the lower extremities also correlated with worse quality-of-life outcomes.

## **Conclusion and Potential Impact:**

The characterization of this cohort will guide broader studies of treatments and quality-of-life trends among patients with complex vascular anomalies. Future directions could explore patient outcomes, complication rates, and influences on quality-of-life in a prospective study design.