

Venous Aneurysm in The Dorsal Region of The Left Hand

Ian Caldeira Ruppen^{1*}, Lorena Lima Gargaro², Jamile Diogo de Araujo³, Leandro Hideki Otani⁴, Fernanda Romagnole Pugliese⁵, Guilherme Enzo Giovanelli Mansano⁶, Mariane Zancanaro Gallina⁷, Marcela Castrequini Guimarães do Vale⁸, Rafaela Castrequini Guimarães do Vale⁹, Vitor Augusto Olivari do Carmo¹⁰, Ana Heloisa Sales da Mota¹¹, Geovani Almeida Gois¹²

Main Author

¹Centro Universitário Ingá-UNINGÁ, Email: Ian2ruppen@gmail.com; ORCID: <https://orcid.org/0000-0003-1706-1662>

Co-authors:

²Universidade Estadual de Maringá UEM, ORCID: <https://orcid.org/0000-0001-5676-4008>

³Hospital Universitário de Maringá, ORCID: <https://orcid.org/0000-0002-6302-0864>

⁴Instituto Maringá de Imagem, ORCID: <https://orcid.org/0009-0000-6832-4907>

⁵Unicesumar, Email: fer.pugliese@hotmail.com; ORCID: <https://orcid.org/0009-0005-1578-3559>

⁶Centro Universitário Ingá-UNINGÁ

⁷Centro Universitário Ingá-UNINGÁ, ORCID: <https://orcid.org/0000-0002-5304-7449>

⁸Centro Universitário Ingá-UNINGÁ

⁹Centro Universitário Ingá-UNINGÁ

¹⁰Centro Universitário Ingá-UNINGÁ

¹¹Centro Universitário Integrado

¹²Universidade Federal do Maranhão, Email: geovanigois_@hotmail.com, ORCID: <https://orcid.org/0009-0008-1252-0827>

***Corresponding author:** Ian Caldeira Ruppen, Centro Universitário Ingá-UNINGÁ, Email: Ian2ruppen@gmail.com; ORCID: <https://orcid.org/0000-0003-1706-1662>

Citation: Ruppen IC, Gargaro LL, de Araujo JD, Otani LH, Pugliese FR, et al. (2024) Venous Aneurysm in The Dorsal Region of The Left Hand. Annal Cas Rep Rev: ACRR-408.

Received Date: 07 August, 2024; **Accepted Date:** 12 August, 2024; **Published Date:** 16 August, 2024

Keywords: Aneurysm; venous; dorsal; hand; trauma

Introduction

Venous aneurysms (VAs) consist of dilations of the venous lumen whose diameter exceeds twice the normal size. They are uncommon findings usually discovered incidentally through imaging studies and have been described in various locations of the body. The incidence is higher in females, with only two previously reported cases of VAs in extremities. Many etiologies have been suggested, including traumatic, inflammatory, congenital, degenerative, or iatrogenic causes, as well as associations with varicose veins and arteriovenous fistulas as the main vascular pathology associations.

Objectives

To report a clinical case of a large venous aneurysm in the dorsal region of the hand in a 54-year-old woman, describing its rare occurrence and characteristics, thereby contributing to a better diagnosis.

Materials and Methods

A retrospective case report was conducted through electronic medical record review and a brief literature review for context.

Case Report

A 54-year-old female hairdresser followed up in the vascular surgery outpatient clinic for venous dilation in the dorsal region of the left hand. The patient reported the onset of symptoms two years ago, with progressive pain, especially during work and exertion. She had comorbidities such as systemic arterial hypertension and bilateral varicose veins in the lower limbs. Currently, she was taking ramipril and hydrochlorothiazide. A venous Doppler exam was immediately requested, confirming the presence of a venous aneurysm in the dorsum of the left hand, without thrombus presence, and measuring a maximum diameter of 0.74 x 1.04 cm with reflux in color mode, with anechoic and compressible material. There were no signs of deep vein thrombosis. The patient underwent surgical treatment with thrombectomy and dissection of the aneurysmal dilation in the dorsum of the hand, with proximal and distal venous ligation under local anesthesia. The patient had a good postoperative course without complications and was discharged the same day with prophylactic antibiotic therapy.



Figures 01 and 02: Non-pulsatile swelling on the dorsum of the left hand, compressible and mobile on palpation, without adherence to deep planes.



Figures 03 and 04: Venous aneurysmectomy of the dorsum of the left hand with proximal and distal ligation.

Discussion

An aneurysm, by definition, is a localized and persistent dilation of a blood vessel associated with changes in its wall. In contrast to arterial aneurysms, venous aneurysms are extremely rare in daily clinical practice. The diagnosis is usually clinical but can be confirmed by imaging studies, with magnetic resonance imaging and Doppler ultrasound being the gold standard method. Management of these cases requires specialized knowledge of the appropriate treatment, with surgical aneurysmectomy being the treatment of choice according to guidelines.

Conclusion

The reported case illustrates the rare occurrence of a venous aneurysm in the dorsal region of the hand, highlighting the uniqueness of this anatomical presentation and its clinical and surgical management. The development of the reported large venous aneurysm presents typical characteristics evidenced by imaging studies. The surgical intervention involving dissection of the aneurysmal dilation with standard gold treatment venous ligation proved effective, resulting in satisfactory postoperative outcomes. This case contributes to understanding the manifestation and treatment of venous aneurysms in extremities, emphasizing the importance of precise diagnosis and appropriate surgical approach for a favorable outcome.

References Case Venous Aneurysm

1. SARAP, M. D.; WHEELER, W. E. Venous aneurysms. **Journal of Vascular Surgery**, v. 8, p. 182-183, 1988.
2. FRIEDMAN, S. G.; KRISHNASASTRY, K. V.; DOSCHER, W.; DECKOFF, S. L. Primary venous aneurysms. **Surgery**, v. 108, p. 92-95, 1990.
3. GILLESPIE, D. L.; VILLAVICENCIO, J. L.; GALLAGHER, C. et al. Presentation and management of venous aneurysms. **Journal of Vascular Surgery**, v. 26, p. 845-852, 1997.
4. CALLIGARO, K. D.; AHMAD, S.; DANDORA, R. et al. Venous aneurysms: surgical indications and review of the literature. **Surgery**, v. 117, p. 1-6, 1995.
5. FARAJ, W.; SELMO, F.; HINDI, M.; HADDAD, F.; KHALIL, I. Cephalic vein aneurysm. **Annals of Vascular Surgery**, v. 21, p. 804-806, 2007.
6. DOURADO, O. C.; MIRANDA, A. G.; PINHEIRO FILHO, A. et al. Aneurisma venoso no pé: relato de casos e revisão da literatura. **Journal of Vascular Brasil**, v. 5, p. 313-316, 2006.
7. ANDREEV, A.; PETKOV, D.; KAVRAKOV, T. et al. Jugular venous aneurysms: when and how to operate. **International Angiology**, v. 17, p. 272-275, 1998.

Copyright: © 2024 Ruppen IC. This Open Access Article is licensed under a [Creative Commons Attribution 4.0 International \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.