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Spontaneous Rupture of Scrotal Skin Varicose Veins: A Case Report

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Abstract | **Case Report**

Varicose veins are most commonly found in the legs, but they may also appear on the thighs and up to the groin. Scrotal localization of varicose veins is an exceptional situation; to date, no published cases of spontaneous rupture of scrotal skin varices have been found in the literature. We report a case of spontaneous rupture of a scrotal varicose vein in a 74-year-old male with no particular medical history. He had presented with scrotal varices for 6 months and was admitted to the emergency department with active scrotal bleeding due to sudden rupture of a varicose vein, with no associated trauma. Given his hemodynamic instability, the patient was transferred to the operating room for surgical exploration, which revealed several dilated and tortuous subcutaneous veins in the scrotum. The ruptured vein was ligated. The outcome was satisfactory with hemodynamic stabilization.

Keywords: Varicose veins, varicocele, spontaneous rupture, ligation.

INTRODUCTION

Varicose veins are defined as permanent dilation of subcutaneous veins exceeding 3 mm in diameter. In most cases, they affect the lower limbs, involving the superficial saphenous veins—both great and small—and their tributaries [1,2]. Scrotal varicosities are rare and are part of the spectrum of chronic venous disorders, which comprise functional and morphological abnormalities of the venous system [3].

Chronic venous disease is often considered minor, even though it significantly affects quality of life and imposes a burden on healthcare systems due to its chronic and progressive nature and its high prevalence. In Europe, among individuals aged 30 to 70, the prevalence of varicose veins is around 40%, with 15% having severe varicosities and 5% chronic venous insufficiency. Although it can occur at any age, both the prevalence and severity increase with age. Most studies report a female predominance [3,4].

Spontaneous rupture of varicose veins is a vascular emergency and may recur if the underlying cause is not addressed [5]. Data on spontaneous hemorrhagic rupture of superficial scrotal varices are extremely rare, hence our report of this unique case.

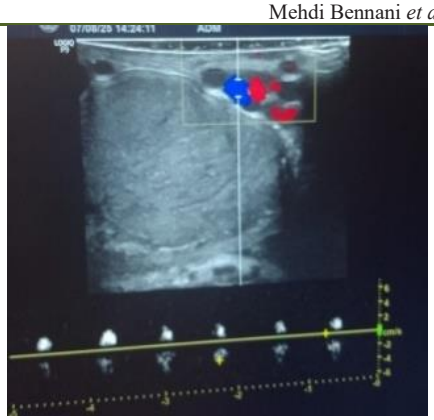
CASE PRESENTATION

We present the case of a 74-year-old male concierge with no significant medical history who had been experiencing scrotal varices for 6 months. He presented to the emergency department with spontaneous, atraumatic scrotal bleeding.

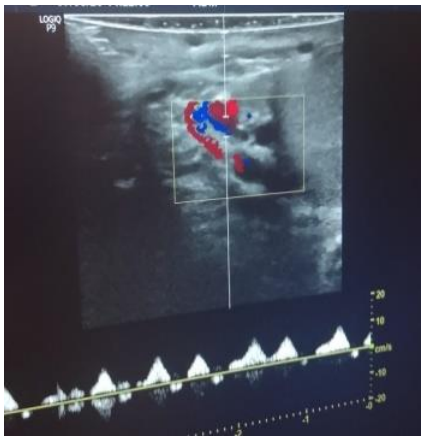
He had no personal or family history of similar conditions. On examination, he was hemodynamically unstable. Inspection of the external genitalia revealed multiple subcutaneous scrotal varicosities with active bleeding from one ruptured varix. There were no similar lesions elsewhere on the body.

An urgent scrotal Doppler ultrasound showed multiple subcutaneous varices with arterialized flow and associated varicocele, suggesting an underlying arteriovenous malformation (AVM). Due to ongoing hemodynamic instability, the patient was taken to the operating room for surgical exploration. Multiple dilated and tortuous subcutaneous veins were found, and the ruptured vein was ligated.

The patient stabilized postoperatively and was referred to cardiovascular surgery for further evaluation and management.

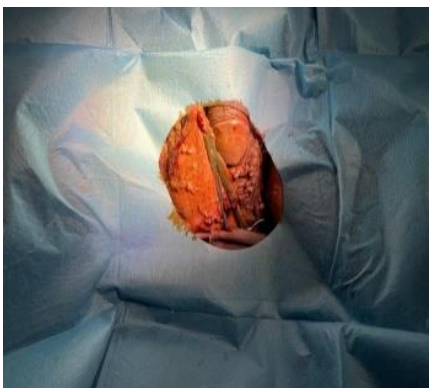


Doppler ultrasound showed highly dilated superficial veins with arterialized flow, with normal testes.



Ultrasound also showed dilation of the pampiniform plexus, confirming the presence of an associated varicocele.

Ruptured scrotal varix in the right hemiscrotum, compressed manually by the surgeon.



Clamping of the varix using forceps to achieve hemostasis.

Final ligation of the ruptured vein with successful bleeding control.

Discussion

Varicosities are one of the manifestations of chronic venous disease, typically involving the lower limbs. Scrotal involvement is rare [2], as in our patient.

Maxime Petitalot's study showed that most patients presenting with hemorrhagic episodes due to varices were over 50 years old (73.8%), with the risk increasing with age. The average age was around 60 years, consistent with our case [5]. While many studies report a female predominance [3,4], some have shown male predominance, likely due to sample size variations [5].

According to the literature, variceal hemorrhage generally occurs in patients with advanced-stage chronic venous disease, often with trophic skin changes and multiple symptoms [1,2,5,7]. However, in our case, the patient presented with hemorrhage at an early, asymptomatic stage of the disease, which was mostly aesthetic at the time.

This demonstrates the surprising nature of such a vascular emergency occurring in patients who may seem clinically stable, emphasizing the importance of early risk factor screening [5]. The most common bleeding sites were in the lower limbs: foot (15.9%), ankle (31.8%), and leg (40.9%). Proximal sites were less common: knee (2.4%), thigh (4.8%), and scrotum (2.4%) [5].

These findings may be explained by higher venous pressure in the lower extremities due to gravity and venous insufficiency. This supports the rarity of scrotal location, as seen in our patient.

Diagnosis of hemorrhagic rupture is clinical, but scrotal Doppler ultrasound is essential to identify any underlying arteriovenous malformations, which can be classified into: High-flow AVMs, Low-flow AVMs. MRI may be helpful in outpatient vascular medicine to assess the size, location, and connections of the lesion and search for etiological factors [8]. Varicose veins can occur in the context of: Post-thrombotic syndrome (2.3%), Congenital venous malformations (2.3%), Varicocele (2.3%) [5]

High-flow AVMs are dangerous vascular anomalies that can progress, lead to local tissue destruction, and carry a risk of life-threatening bleeding [9]. Their etiology is mostly unknown and sporadic, as in our patient [10].

Emergency management and prompt bleeding control are necessary [11,12]. In one study [5], two patients underwent simple suturing, similar to our case.

In curative settings, a Japanese team studied foam sclerotherapy in five patients [10]. This technique was found to be simple, safe, and effective, and was considered an excellent treatment for hemorrhagic varicose vein ruptures.

Conclusion

The spontaneous rupture of scrotal skin varicosities, though rare, represents a true medical emergency that must be promptly managed to preserve the patient's life. Given its rarity, early detection of risk factors is crucial and should be part of the management strategy for chronic venous disease.

References

1. Gravereaux Magruder C. Donaldson Varicose Veins, Chronic Venous Disorders, 2006 Elsevier Inc.
2. 2.Bri Kestler, PA-C, MMS Chronic Venous Insufficiency Simulation Program, University of South Alabama, 5741 USA Drive North, Mobile, AL 36688-0002, USA, February 2021
3. Alice TORCQ ¨Les affections veineuses chroniques : de la maladie veineuse chronique aux ulcères veineux¨, Lille, 2019
4. Ramelet A-A, Saurat J-H, Lipsker D, Thomas L, Borradori L, Lachapelle J-M, Dermatologie et

Infections Sexuellement Transmissibles (Sixième Édition). Paris : Elsevier Masson. 2017. p. 819-825.
5. Maxime petitalot ¨Etude des facteurs de risque de rupture hémorragique des varices des membres inférieurs¨, Sciences du vivant [q-bio] 2020
6. Evans, G. A., D. M. Evans, R. M. Seal, et J. L. Craven. « Spontaneous Fatal Haemorrhage Caused by Varicose Veins ». Lancet (London, England) 2, no 7842 (15 décembre 1973): 1359-61.
7. Wigle, R. L., et G. V. Anderson. « Exsanguinating Hemorrhage from Peripheral Varicosities ». Annals of Emergency Medicine 17, no 1 (janvier 1988): 80-82.
8. M. Barreau∗, A. Dompmartin « Les malformations cutanées vasculaires non syndromiques Non-syndromic cutaneous vascular malformations dermatologie » Normandie, 2013
9. Boon LM, Ballieux F, Vikkula M. Pathogenesis of vascular anomalies. Clin Plast Surg 2011; 38:7—19.
10. Boon LM, Vikkula M. Vascular malformations. In: Lowell A, editor. Fitzpatrick's dermatology in general medicine. New York: McGraw Hill; 2012. p. 2076—94)
11. 11.Fragkouli, Kleio, Antigoni Mitselou, Vassiliki A. Boumba, George Siozios, George T. Vougiouklakis, et Theodore Vougiouklakis. « Unusual Death Due to a Bleeding from a Varicose Vein: A Case Report ». BMC Research Notes 5 (5 septembre 2012): 488.
12. Aquila, Isabella, Matteo A. Sacco, Santo Gratteri, Ciro Di Nunzio, et Pietrantonio Ricci. « Sudden Death by Rupture of a Varicose Vein: Case Report and Review of Literature ». The Medico-Legal Journal 85, no 1 (mars 2017): 47-50.