

Andrology and fertility

## Thrombosis of the pampiniform plexus: About a case report

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### Introduction

Testicle pain is a main reason for consultation in urology. In young patients, diagnosis of testicular torsion should be seen as a priority. In older subjects, ultrasound makes the diagnosis easier and enables to find out rare pathologies like varicocele thrombosis.

### Clinical observation

A 54-year-old patient, with no medical or surgical history, presented with left inguinal pain of two days duration, without fever or any associated urinary signs. His examination revealed a sensible palpable left varicocele grade III without homolateral hernia (Fig. 1). Other physical examination and biology were normal. Ultrasound revealed an expanded vein in the left spermatic cord which contained echogenic material consistent with thrombus (Fig. 2). The appearances were consistent with a thrombosed left pampiniform plexus. The patient had a medical treatment of anti-inflammatory basis, anticoagulant at a curative dose and veino-tonics. After 15 days, the patient improved a lot and the pain disappeared totally. A scrotal ultrasound was performed three months after the acute episode showing complete resolution of the thrombus with greater dilation of the pampiniform plexus (Fig. 3). The patient maintained a sensation of left scrotal heaviness at prolonged standing. He presented once with throbbing pain relieved by paracetamol and veinotonics.

### Discussion

Spontaneous thrombosis of the pampiniform plexus with or without palpable varicocele is a rare pathology. Diagnosis has previously been misdiagnosed as an incarcerated inguinal hernia.<sup>1</sup> In these circumstances, ultrasound can be helpful to avoid a useless surgical

exploration.<sup>2</sup> Etiologies of spontaneous thrombosis of left spermatic vein are unknown and several hypotheses were evoked for instance Buerger illness<sup>3</sup> and the prolonged effort or sexual activity.<sup>4</sup> Phlebography or Doppler ultrasound can confirm the diagnosis. Examination with ultrasound should be the first line investigation. It offers a non-invasive and accurate means of establishing the diagnosis. Further imaging is often unnecessary if the thrombosis is confined to the superficial spermatic vein. Symptomatic treatment with non-steroidal anti-inflammatory medications is generally sufficient without the need for anti-coagulation. The conservative treatment remains controversial. For some authors, surgical exploration with thrombosed vein resection is the rule.<sup>5</sup>



Fig. 1. A left varicocele grade III with a testicular atrophy.

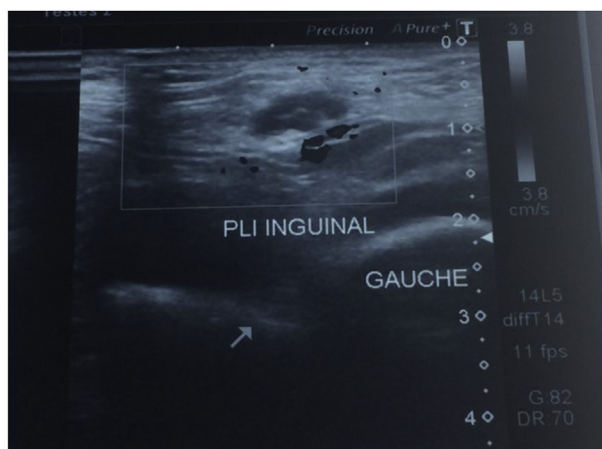
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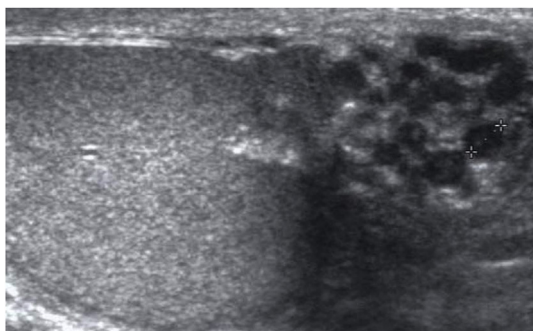
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**Fig. 2.** A dilated non-compressible vessel containing echogenic material consistent with acute thrombus.



**Fig. 3.** Complete resolution of the thrombus with greater dilation of the pampiniform plexus.

## Conclusion

Spontaneous thrombosis of the pampiniform plexus is a rare pathology. It must be invoked when a painful retro-testicular fibrous cord is palpated. Most often ultrasound confirms the diagnosis. The treatment is conservative.

## Conflicts of interest

The authors declare that there are no conflicts of interest regarding the publication of this article.

## References

1. Hashimoto L, Vibeto B. Spontaneous thrombosis of the pampiniform plexus. *Scand J Urol Nephrol.* 2006;40(3):252–254.
2. Kleinclauss F, Della Negra E, Martin M, Bernardini S, Bittard H. Spontaneous thrombosis of left varicocele. *Prog Urol.* 2001;11(1):95–96.
3. Coolseat B, Weinberg R. Thrombosis of the spermatic vein in children. *J Urol.* 1980;124(2):290–291.
4. Anseline P. A case of spontaneous thrombosis of the pampiniform plexus of the testis. *Aust N Z J Surg.* 1977;47(6):801–802.
5. Gleeson MJ, McDermott M, McDonald G, McDermott TE. Spontaneous thrombosis of the left spermatic vein. *Br J Urol.* 1992;70(5):567.