

# Intratesticular Varicocele

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## ABSTRACT

We report case of a 28-year-old male who had extratesticular varicocele which was associated with intratesticular varicocele. The patient was referred to our department with pain in scrotal region. Routine scrotal sonography revealed extratesticular varicocele which was confirmed by color Doppler. It was associated with intratesticular varicocele. Intratesticular varicocele is a rare condition with a variable sonographic appearance. Color Doppler sonography is helpful in confirming the diagnosis. Detection of intratesticular component is essential in the management of varicoceles.

**KEYWORDS:** Color Doppler, extratesticular, intratesticular, varicocele

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## INTRODUCTION

Varicocele is one of the common causes of male infertility. They are due to dilatation of pampiniform plexus veins with sluggish flow.<sup>[1]</sup> Sonography is the first choice of investigation in the detection of varicoceles. In general, they present as multiple serpiginous anechoic lesions around the testis. Valsalva manoeuvre aids in detection of varicoceles. Color Doppler confirms the vascular nature of lesion. Rarely extra testicular varicocele is associated with intra testicular varicocele. We report a case of varicocele in a male who presented with history of pain in scrotal region. It was associated with intratesticular component.

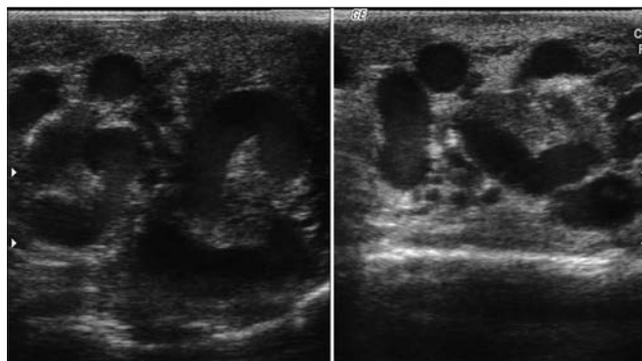
## CASE REPORT

A 28-year-old male presented with a history of pain in the scrotal region for about 6 months. Surgical examination was negative. Patient was not seen by an urologist. His routine blood and urine test were within the normal limits. He was referred to our department for scrotal sonography to evaluate the cause of pain. Scrotal sonography revealed multiple dilated veins superior, lateral and inferior to the testis on left side. They ranged in size from 4 to 5 mm [Figure 1]. Color Doppler study confirmed the vascular nature [Figure 2]. The flow was sluggish and reflux noted on Valsalva manoeuvre for about 6 s. The left testis showed multiple anechoic tubular lesions spontaneously in mediastinal and subcapsular location [Figure 3]. Valsalva manoeuvre accentuated both intra- and extratesticular varicoceles. The right testis was normal in size, contour, and echo texture. Both epididymides appeared normal. Pampiniform plexus veins were

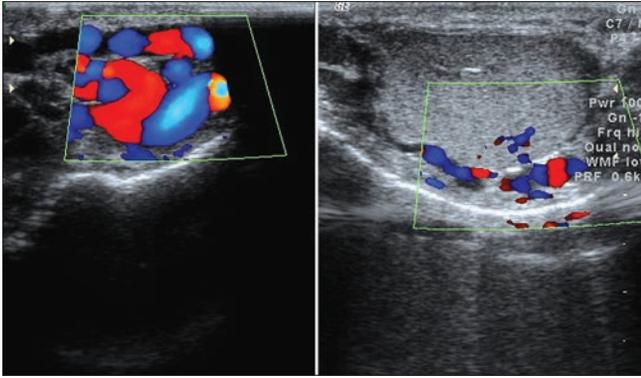
normal in caliber on right side. The features were consistent with extratesticular and intratesticular varicocele on left side.

## DISCUSSION

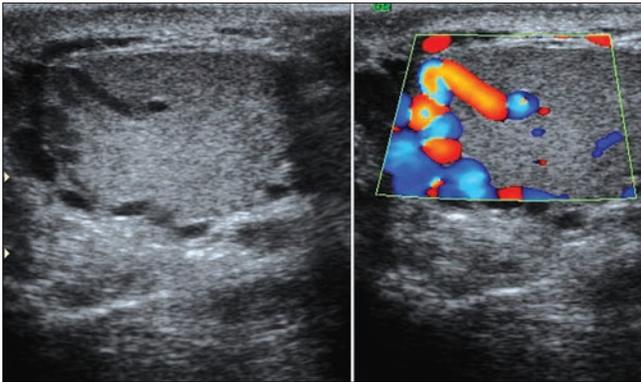
Varicocele occurs as a result of increased venous pressure and incompetence of internal spermatic vein. Retrograde flow into internal spermatic vein is the mechanism in development of varicoceles. Extratesticular varicocele is a common entity with a reported incidence of 8-20% in adult population.<sup>[2]</sup> Most cases are either asymptomatic or associated with a history of orchitis, infertility, scrotal swelling with pain. Intratesticular varicoceles are an uncommon condition characterized by dilatation of intra testicular veins and commonly associated with extratesticular varicoceles. Isolated intratesticular varicoceles have been described in the literature.<sup>[2]</sup> Sonographic findings of intratesticular varicoceles were first described by Weiss *et al.*<sup>[3]</sup> who reported a case of dilated testicular vein near the



**Figure 1:** B-mode ultrasonography shows multiple serpiginous dilated veins of pampiniform plexus around testis



**Figure 2:** Color Doppler study shows extratesticular varicocele



**Figure 3:** B-mode ultrasonography and color Doppler study show subcapsular and mediastinal location of intratesticular varicocele

mediastinum testis. It has no predilection for side and may occur on the left, right, or both testes. The locations of intratesticular varicoceles can be subcapsular or mediastinal. On color Doppler imaging flow can be spontaneous or flow could be seen only after the Valsalva manoeuvre.<sup>[4]</sup> The Valsalva manoeuvre plays a very important role in the diagnosis of intratesticular varicoceles because in almost half of cases, the flow will not show up spontaneously.<sup>[5]</sup> Intratesticular varicoceles can be tubular or oval in shape. Tubular types are located within mediastinum testis whereas ovals are located adjacent to the mediastinum

testis.<sup>[2]</sup> Due to similarity in the flow characteristics of intratesticular and extratesticular varicoceles, the pathogenesis is believed to be the same in both conditions. Our case showed mediastinal location of intratesticular varicocele which was detected spontaneously. Most of the reported cases occur on left side which correlates with our case. The knowledge of presence of intratesticular varicocele may rule out sclerotherapy procedures.<sup>[6]</sup>

## CONCLUSION

Intratesticular varicocele is an uncommon lesion. It is usually associated with extratesticular varicocele but can occur as an isolated entity. Awareness of the existence of this condition is necessary for the management of varicocele. Color Doppler Sonography is a simple and effective diagnostic tool in detecting this condition.

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