

THE INCIDENCE OF SCROTAL VARICOCELE AS FOUND IN INFERTILE PATIENTS BY CLINICAL EXAMINATION, B-MODE AND COLOR DOPPLER ULTRASOUND.

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Abstract

Background: Considerable attention has been made for improving the diagnosis of varicocele none invasively by color Doppler ultrasound due to the association between it and male sub fertility and the potential for enhanced fertility after varicocelectomy. The color Doppler ultrasound diagnostic criteria for varicocele were; a. Dilatation of pampiniform plexus more than 2mm. b. Retrograde flow in the upright position regardless the size of pampiniform plexus.

Objectives: To assess the value of color Doppler ultrasound compared to clinical examination and B.mode ultrasound in diagnosis of scrotal varicocele.

Methods: A cross sectional study was done on one hundred infertile or hypo fertile patients with clinical suspicion of varicocele who were examined by B. mode and color Doppler US for confirmation or exclusion of the diagnosis or to exclude recurrence after varicocelectomy.

Results: Color Doppler US including B.mode facility increased the incidence of false negative clinical cases by 22% which is very significant and was important to correct the diagnosis of false positive clinical cases in 6% of patients , they were highly valuable in confirming the clinical suspicion of varicocele in 62%.Color Doppler US was highly essential to detect subclinical cases in 5% and detecting recurrence after varicocelectomy in 37% of postoperative cases.

Conclusion: Color Doppler Ultrasound became the standard reference non-invasive imaging modality for diagnosis of scrotal varicocele and following patients after varicocelectomy.

Keywords: Varicocele, B.mode ultrasound, Color Doppler imaging (CDI).

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Introduction

The most common method for identifying varicocele is physical examination, which is convenient, inexpensive and non-invasive. Clinical signs of varicocele are: scrotal swelling, infertility, and abnormally warm scrotum which are due to increased blood flow^[1]. Palpable varicocele has been classified clinically in three grades^[2].

Grade I: Varicocele is palpable only during Valsalva maneuver.

Grade II: Varicocele is palpable without Valsalva maneuver.

Grade III: Varicocele is visible and palpable without Valsalva maneuver.

However, physical examination is subjective and is dependent on the experience of examining physician and its limitation was demonstrated in a multicenter study by WHO^[3].

It has been suggested that small varicocele not detectable by physical examination alone (subclinical varicocele) may have a role in sub fertility and merit correction^[4,5]. Patients with fertility problems may be referred for scrotal ultrasound examination to evaluate testicular size and parenchyma texture, to assess epididymal integrity and to evaluate the presence of subclinical varicocele^[6].

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