SUMMARY

Scrotal swellings are amongst the most frequent and important complaints encountered in surgical practice, with their well-established effects on infertility.

This study was conducted in order to evaluate the role that grey scale and CDS may play in the assessment of various causes of scrotal swellings, with the patients being categorized into five groups based on their clinical complaints.

Sonographic examinations of 120 patients with scrotal Swellings were performed using grey scale US and CDS. Other complimentary studies, including biopsy, abdominal and pelvic sonography and IVP were performed in certain situations.

The results of this study outline the advantages of scrotal sonography in the accurate assessment of scrotal swellings. In addition to the well known general advantages of sonography including its high resolution, lack of ionizing radiation, being a rapid method that can be accomplished expeditiously compared to other radiographic studies and its ability to be used for follow up of the course of scrotal diseases to detect complications, certain specific advantages of scrotal sonography in cases of scrotal swellings are highlighted including the ability to detect scrotal pathology even in the presence of marked hydrocele, differentiate between intratesticular from extratesticular pathology, permitting greater confidence in the characterization of lesions, demonstrating clinically non palpable testicular tumors and its ability to diagnose and confirm, the presence of clinical and subclinical varicocele.

The addition of flow information by color Doppler and power Doppler ultrasonography permitted even more diagnostic information in the evaluation of patients with scrotal swellings by its ability to differentiate scrotal inflammation from testicular torsion with a high degree of precision and to enhance ultrasonic examination of varicocele, thus, increasing the diagnostic confidence of the examiner.

The advent of scrotal sonography with the addition of color Doppler and power Doppler capabilities has rendered it an excellent method for the assessment of scrotal swellings, making it superior to other diagnostic modalities including conventional radiography, computerized tomography, radionuclide scanning and magnetic resonance imaging.