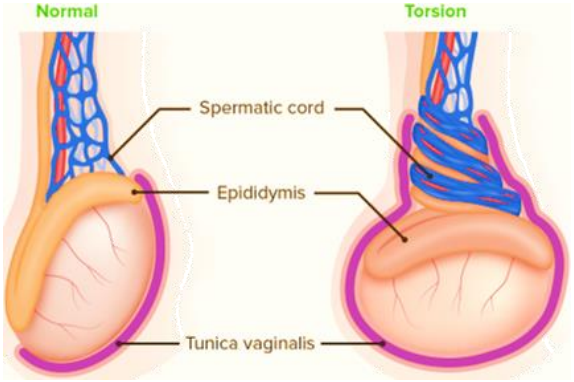
Submitted To	**Dr Amjad Khan**
Submitted by	**Javeria Khan**
Registration No	**70125705**

✓ Elaborate Sonographic findings in Testicular Torsion?

Introduction

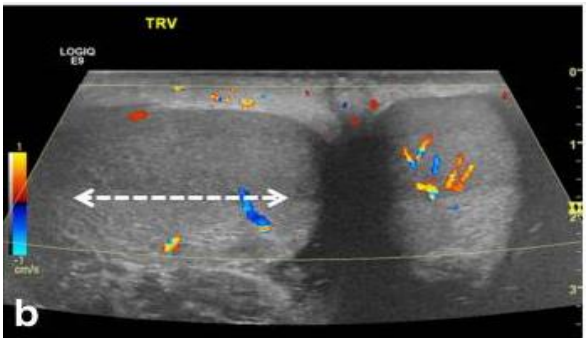


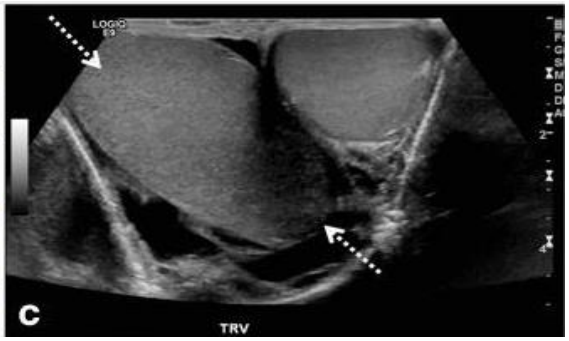
1. Testicular torsion is a ***medical emergency*** that occurs when ***spermatic cord*** which supplies blood to testicles becomes ***twisted***. It causes a ***loss of blood flow*** to the testicle which leads to ***pain, swelling*** and potentially even the ***loss of the testicle*** if not treated promptly. The diagnosis is often made clinically but if it is in doubt, an ***ultrasound is helpful*** in confirming the diagnosis.

Sonographic Findings

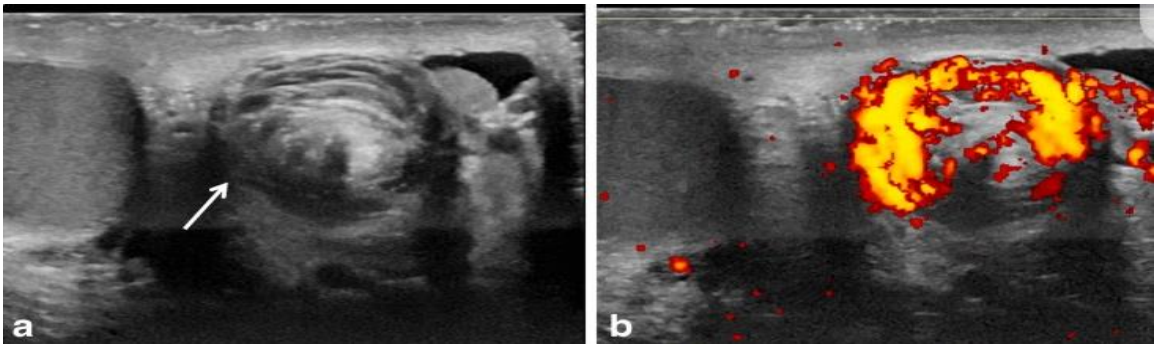
2. Ultrasound is the ***modality of choice*** for evaluating the potentially torted testis. It is simultaneously able to assess the ***structure of the testis*** as well as the ***vascularity***. ***Color Doppler*** sonography is used for ***initial imaging*** study because of its ***high sensitivity*** and ***specificity*** in the diagnosis whereas ***Grayscale*** sonography delineating the ***structural features*** of testicular torsion. In a sonographic examination of patients with testicular torsion, the following findings may be observed on color Doppler and Gray scale sonography:

- ***Horizontal or altered lie***. A horizontal lie is resulted from ***abnormal attachments*** of the ***tunica vaginalis***, namely the ***bell clapper*** anomaly. Fig- b is a ***Color Doppler image*** of both testes which shows ***abnormal horizontal lie*** of the right testis (arrow) whereas Fig-c is a ***Gray-scale image*** which shows ***abnormal oblique lie*** of the right testis.

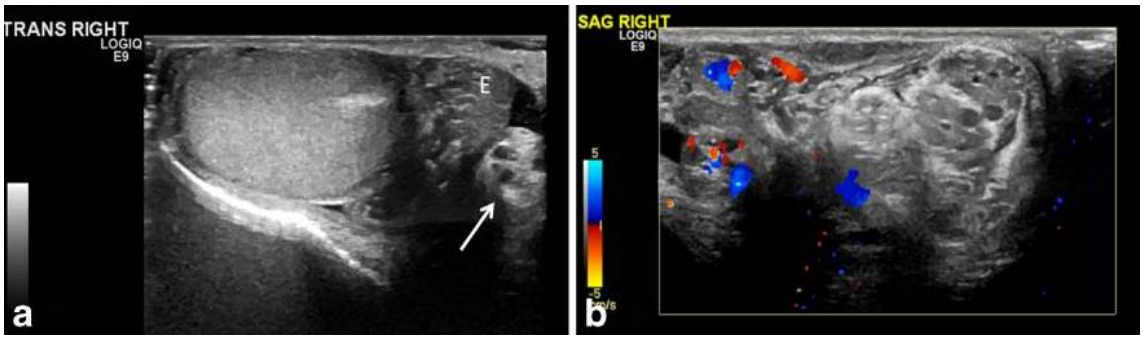




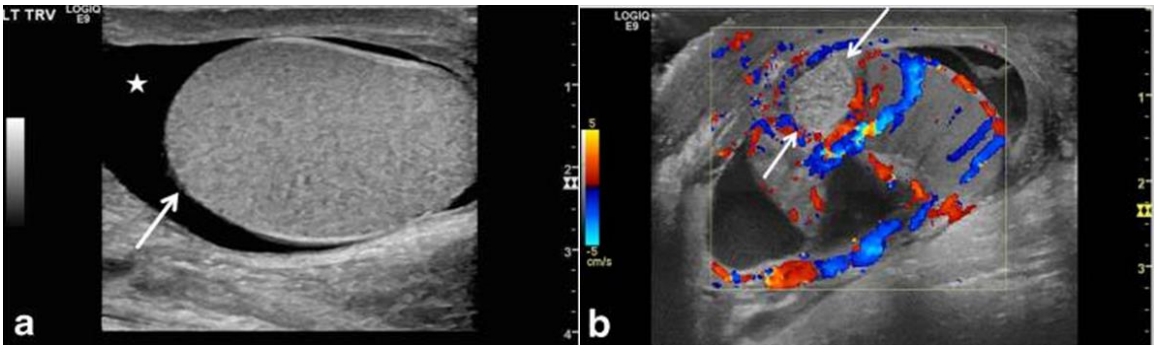
- **Twisting or kinking of the spermatic cord**. It occurs due to an ***abrupt change*** in the course of the spermatic cord with a ***spiral twist*** at the ***external inguinal ring***. Fig-a is a ***Gray-scale*** image which shows an ***eddy swirl*** (arrow) of the spermatic cord suggesting torsion of the cord whereas fig-b is ***Color Doppler*** image of the ***same twisted cord*** which shows ***concentric pattern*** of preserved flow in the ***vessels*** of the twisted cord.



- **Redundant spermatic cord.** ***Redundant spermatic cord*** can be described as the presence of ***excess and tortuous*** spermatic cord in the scrotal sac. Fig-a is a ***Gray-scale*** image which shows a ***redundant spermatic cord*** (arrow) occupying the medial half of the scrotal sac whereas Fig-b is a ***Color Doppler*** image which shows ***excess and tortuous*** spermatic cord bunched up in the scrotal sac.



- **Swelling or enlargement of the affected testicle**. A ***swollen testis*** resulting from ***vascular congestion*** is a worrisome feature for testicular torsion. Fig-a is a ***Gray-scale*** image which shows ***globular shape*** of left testis with horizontal lie (arrow) whereas Fig-b is a ***Color Doppler*** image which shows a ***globular and enlarged*** structure (arrows).



Conclusion

3. It is important to note that a sonographic examination is ***not always sufficient*** to diagnose testicular torsion so ***other diagnostic tests may also be necessary***. If testicular torsion is ***suspected***, it is important to ***seek medical attention*** as soon as possible to prevent potential loss of the testicle.