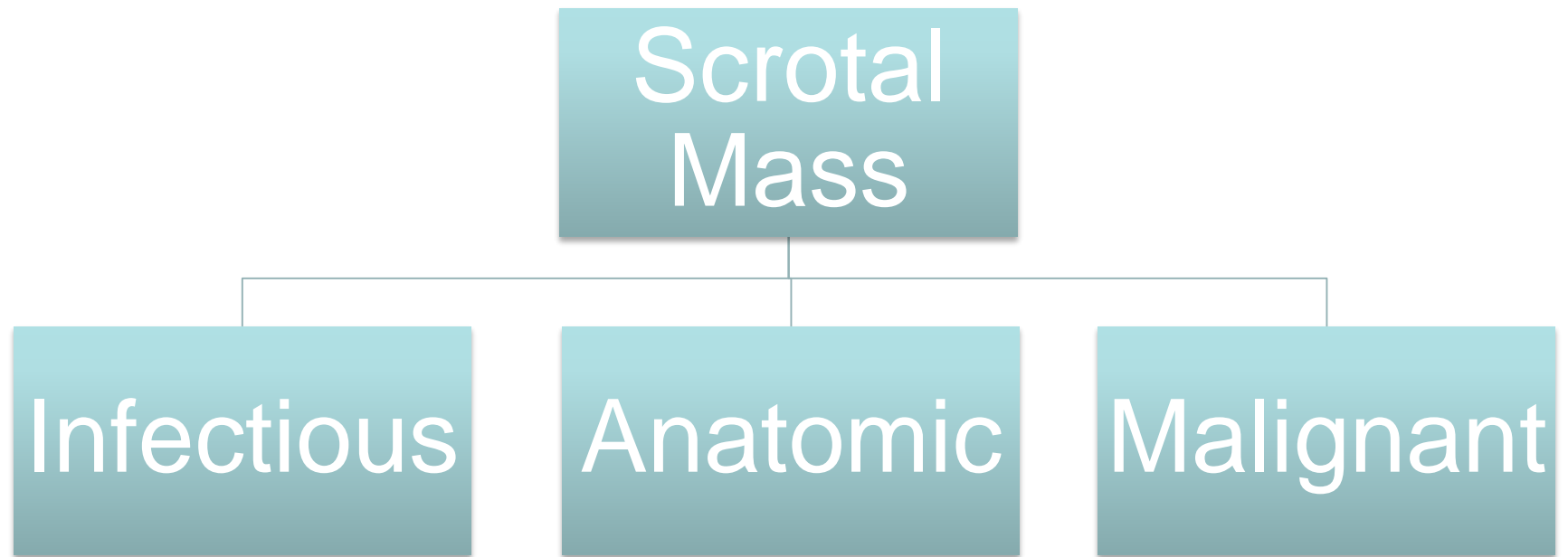


Approach to Scrotal Mass



Approach to Scrotal Mass

Scrotal Mass

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graph TD; A[Scrotal Mass] --> B[Infectious]; A --> C[Anatomic]; A --> D[Malignancy];
```

Infectious

PAINFUL

- Epididymitis
- Orchitis

Anatomic

- Hydrocele
- Varicocele
- Spermatocele
- Torsion of Testis
- Torsion of Appendix Testis

Malignancy

- Testis Tumor

Approach to Scrotal Mass

- History
 - Pain, onset, firmness, hx of undescended testis, STD's, LUTs, urethral discharge
- Physical Exam
 - Location of mass (testis, epididymis, scrotum)
 - Tenderness
 - Transillumination
- Investigations
 - U/A – pyuria with epididymitis / orchitis
 - U/S – ++ Sensitive and specific for testicular tumors

Infectious Scrotal Mass

Epididymitis

- Young adults
 - often associated with STI, chlamydia
- Older adults
 - often non-STI, E Coli.
- Tender, indurated epididymis
- Orchitis
 - May be caused by Mumps virus
 - Swollen ++ tender testicles, often bilateral

Anatomic Scrotal Mass: Hydrocele

- Hydrocele
 - Fluid within tunica vaginalis
 - Called “communicating hydrocoele” if *processus vaginalis* is patent

History

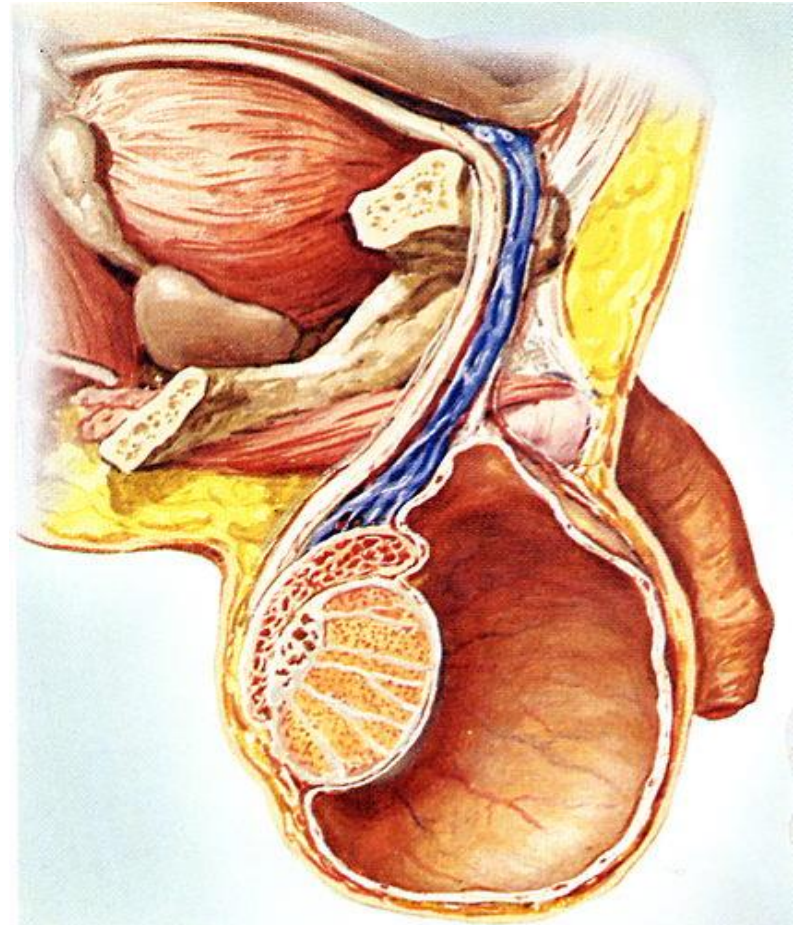
- Typically painless

Physical Exam

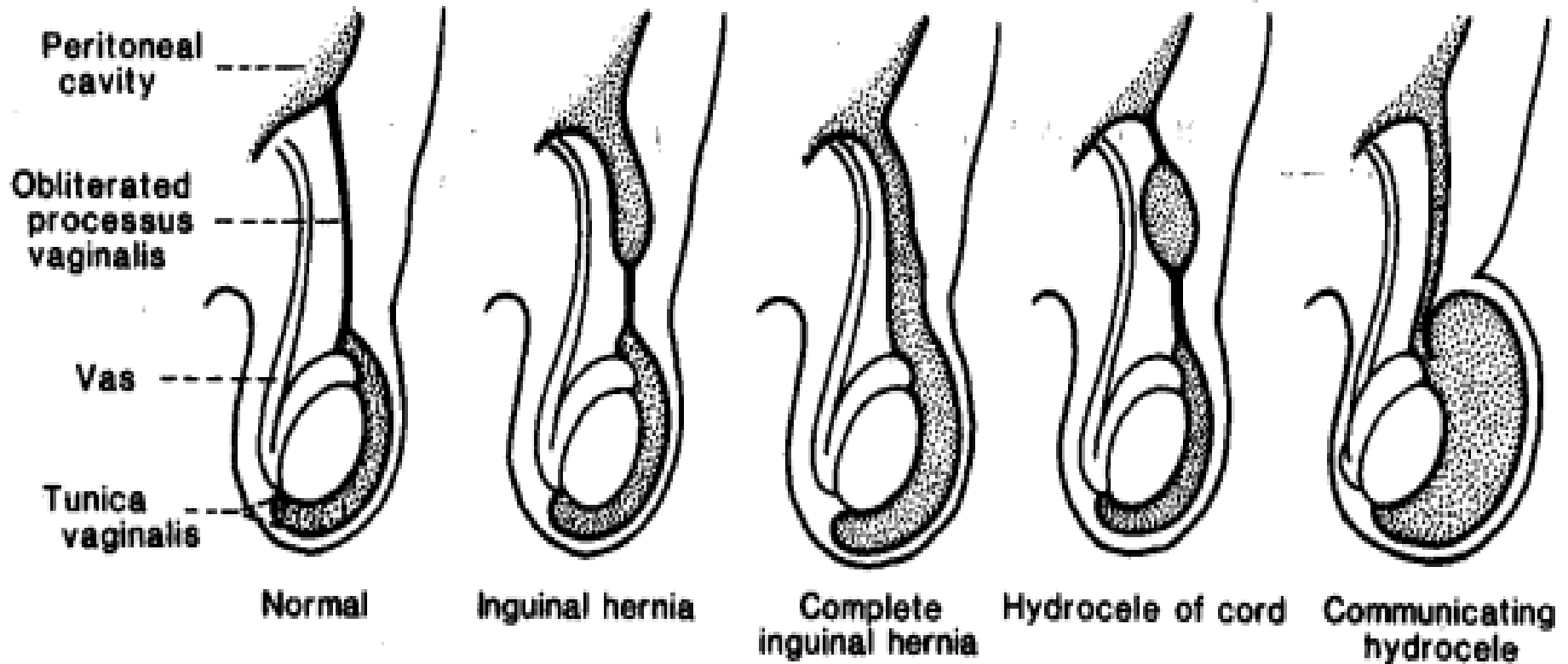
- Transilluminates
- Cannot palpate testicle

Treatment

- No Rx required unless for cosmetic reasons or bothersome size



Anatomic Scrotal Mass



Anatomical Scrotal Mass: Spermatocele

Spermatocele

- Cystic dilatation (aneurysm) of epididymal tubule

History

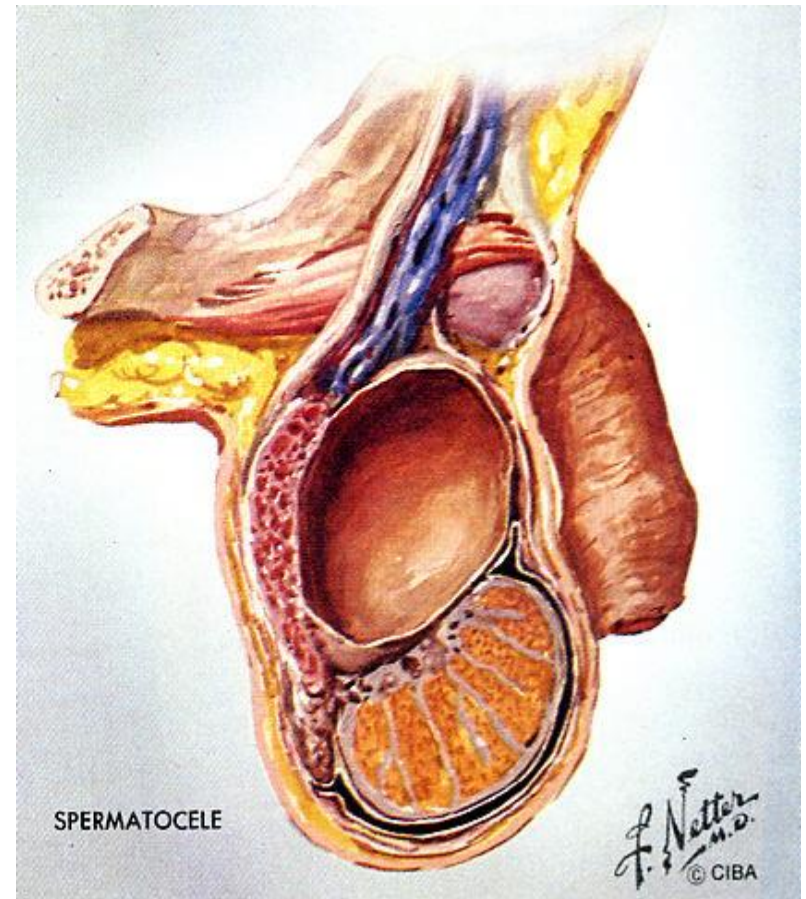
- Painless

Physical Exam

- Transilluminates
- Can palpate body of testicle separate from the mass

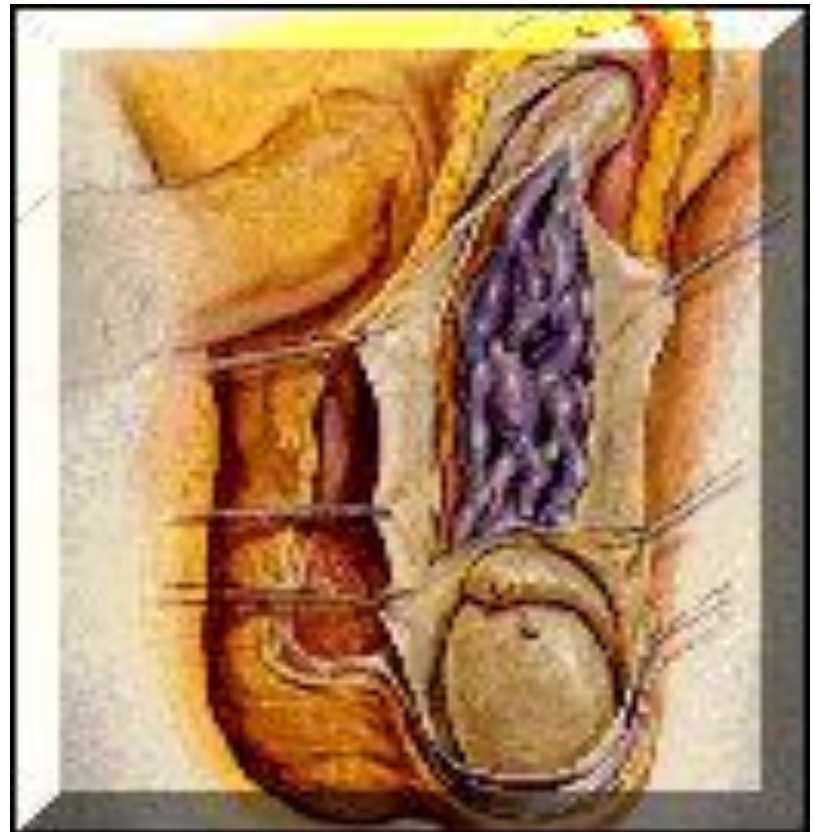
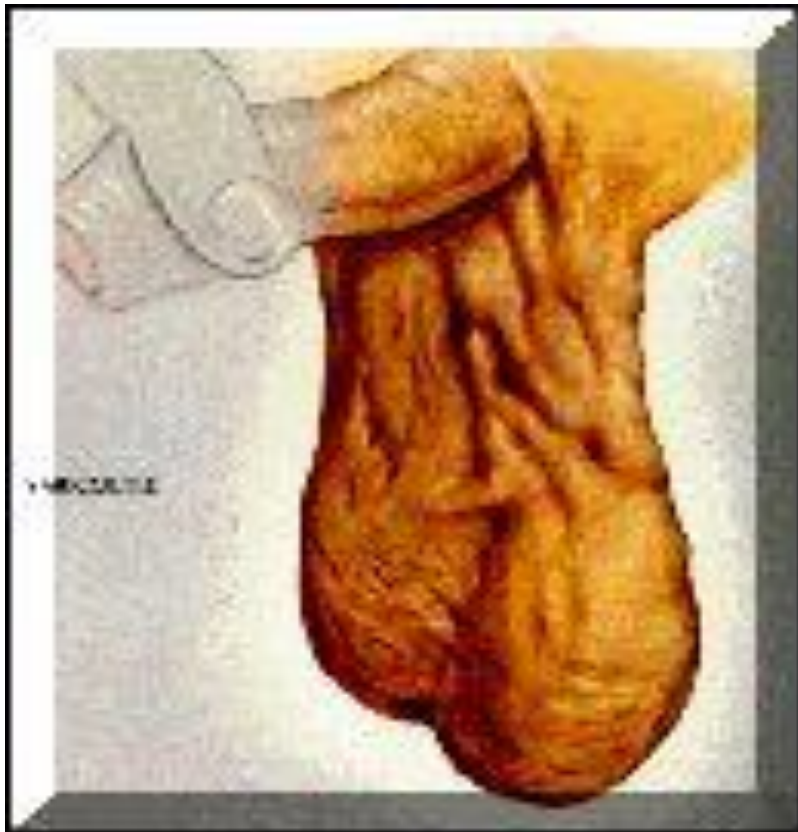
Treatment

- No treatment required unless for cosmetic reasons



Anatomical Scrotal Mass: Varicocele

- Varicocele



Anatomical Scrotal Mass: Varicocele

- Varicocele

- Varicosities of pampiniform plexus

- 90% on left side; seen in 15% of male population
 - Associated with male factor infertility but most men with varicocoeles can expect normal fertility

History

- Typically asymptomatic, cosmetically “bag of worms”
 - Increases in size with valsalva or standing position

Physical Exam

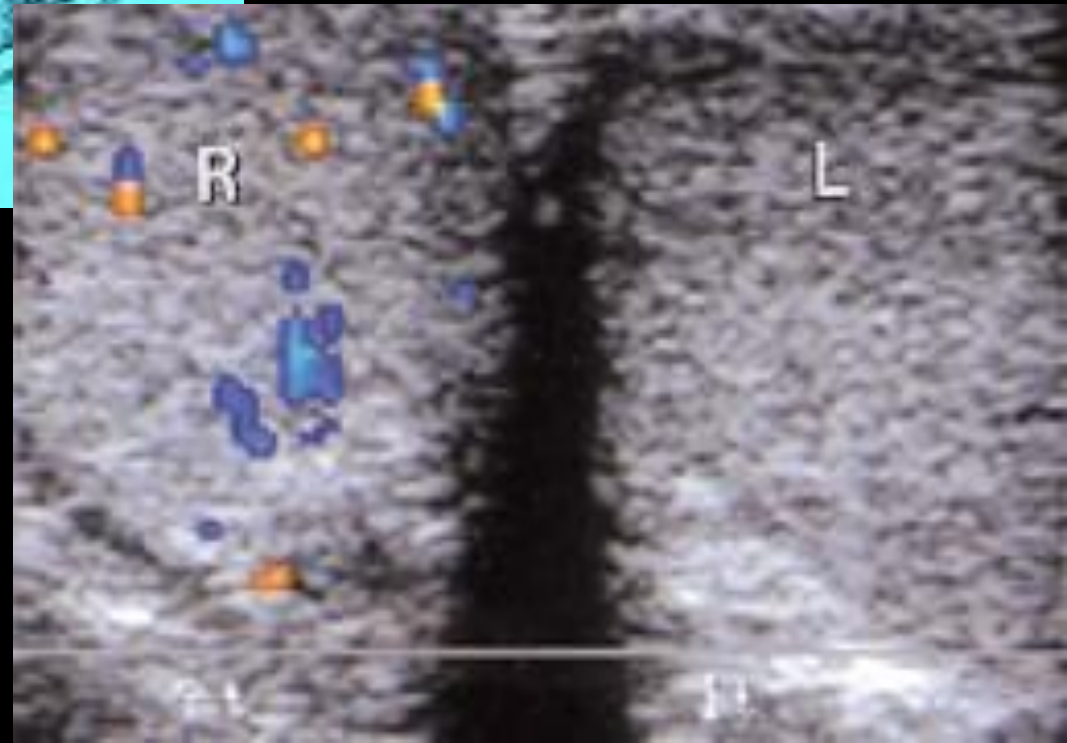
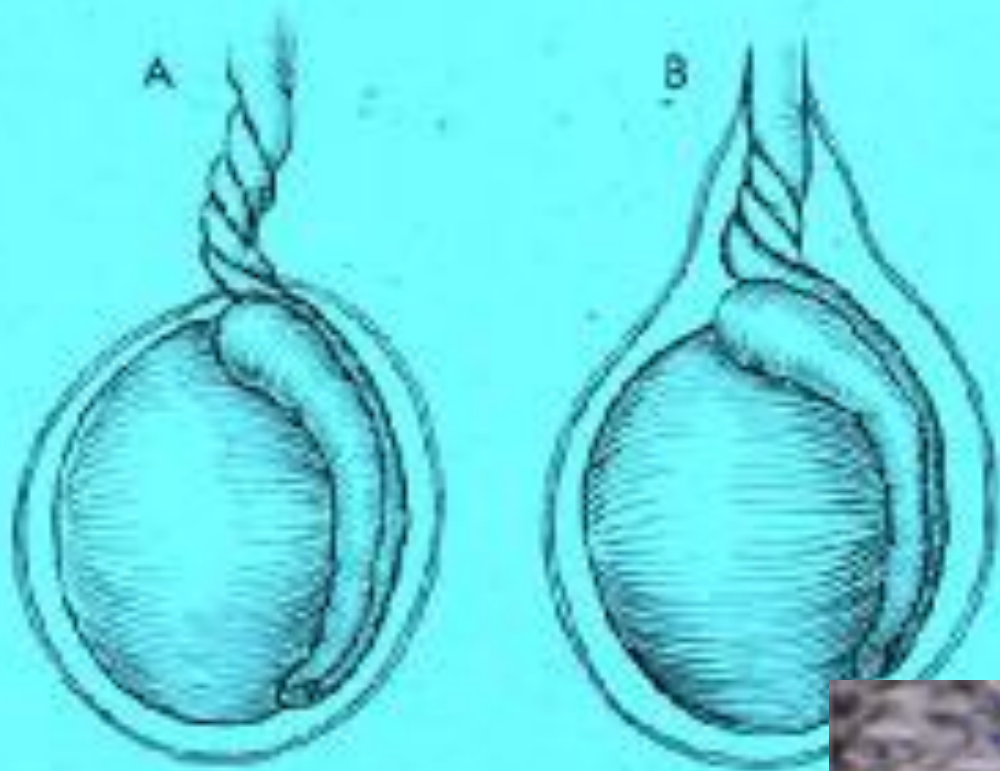
- Bag of Spaghetti in scrotum palpating cord

Treatment

- Surgical or angiographic sclerosis
 - Results in improvement in semen parameters (number, motility, morphology) in 70% to 90% of cases

Anatomical: The Acute Scrotum

- Testicular torsion
 - Surgical Emergency!!
 - Only definitive Diagnosis is Surgical Scrotal Exploration
 - Typically in 12-18yr olds
 - 6 hr window prior to irreversible testicular ischemia
 - Associated with ‘Bell Clapper Deformity’
 - Detort – “like opening a book”





Anatomic Scrotal Mass: The Acute Scrotum

- Testicular Torsion

Physical Exam

- High riding, horizontal testicle
- Absent cremasteric reflex
- Prehn Sign: relief of pain when supporting the scrotum
 - suggests epididymitis

Investigations

- U/A – R/O pyuria (epididymitis)
- Doppler U/S only if diagnosis unclear

Treatment

- Surgical detorsion and orchidopexy

Acute Scrotum

- Epididymitis

- Infection of the epididymis

- <35yrs of age – Chlamydia, gonorrhea
 - >35yrs of age – E. Coli

History

- Pain, Swelling testicle +/- dysuria +/- fever

Physical Exam

- Indurated, swollen and acutely painful epididymis, +/- erythema

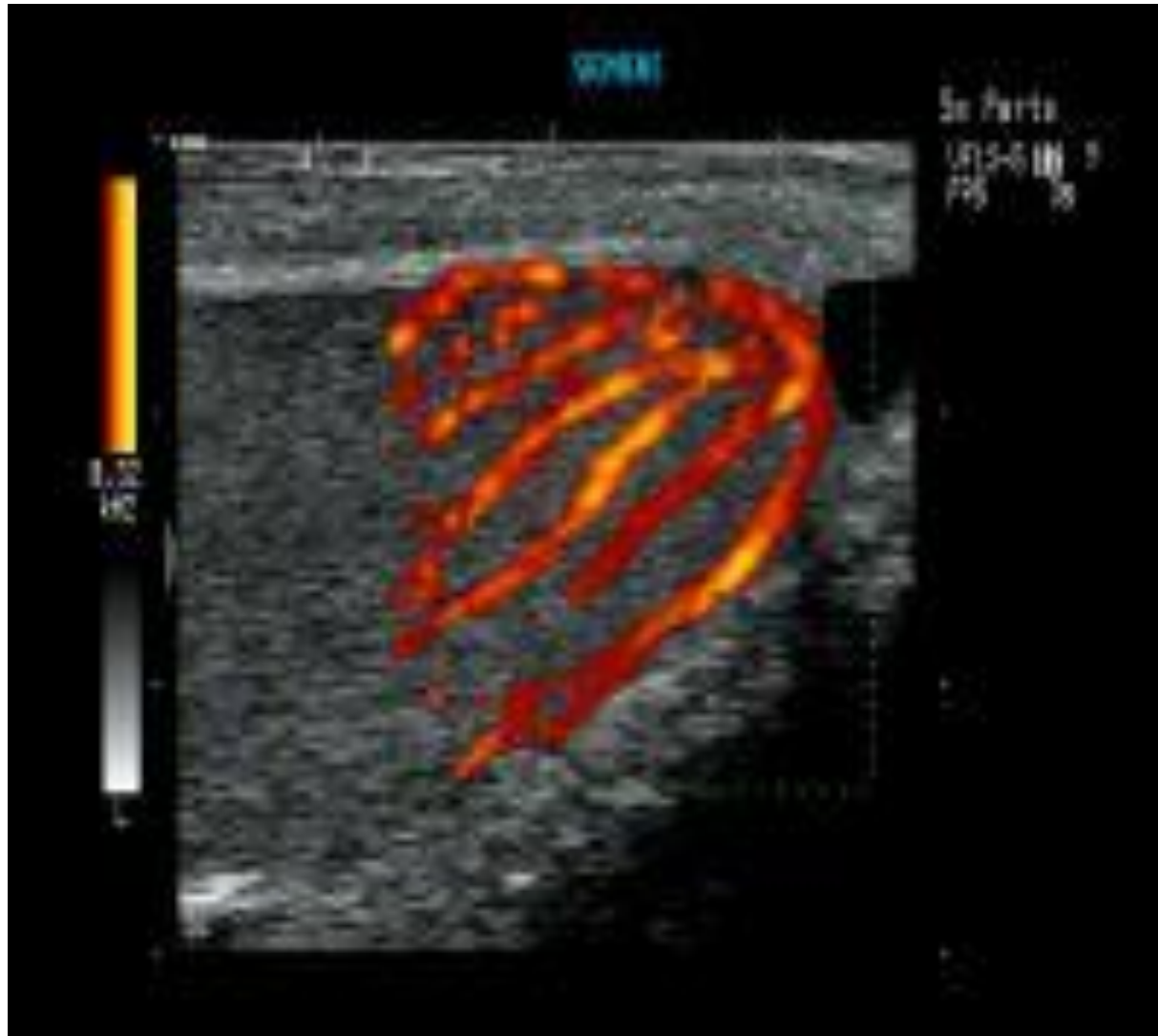
Investigations

- CBC
 - U/A
 - +/- Doppler US of testis

Treatment

- Antibiotics x4 weeks + NSAIDS, and Ice PRN

Epididymitis



Acute Scrotum: Torsion of Appendix Testis

Torsed Appendix testis

- May mimic Testicular Torsion

Physical Exam

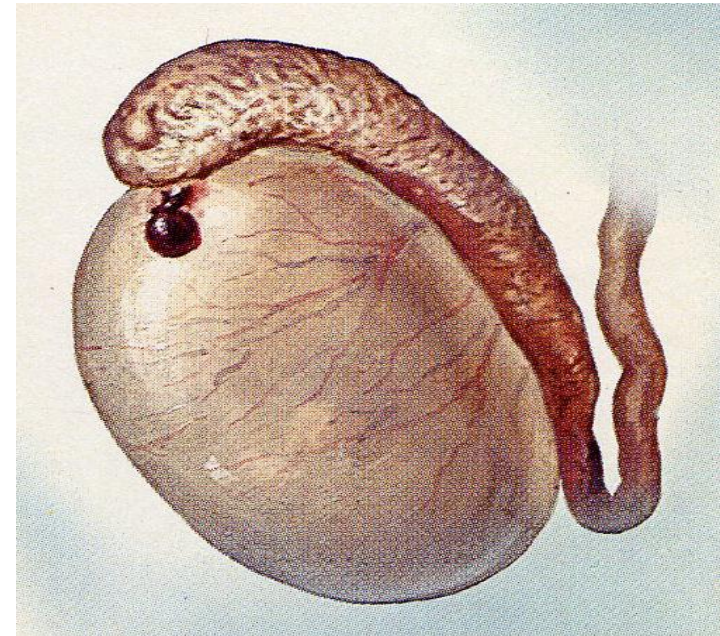
- Blue Dot sign
- Testis may be inflamed/tender, point tenderness to appendix testis
- Not likely elevated, NO horizontal lie

Investigations

- Doppler US to assess testis perfusion
- U/A

Treatment

- Conservative, symptom management if confirmed
- Urological assessment.



Approach to Scrotal Mass

Scrotal Mass

Infectious

PAINFUL

- Epididymitis
- Orchitis

Anatomic

- Hydrocele
- Varicocele
- Spermatocele
- Torsion of Testis
- Torsion of Appendix Testis

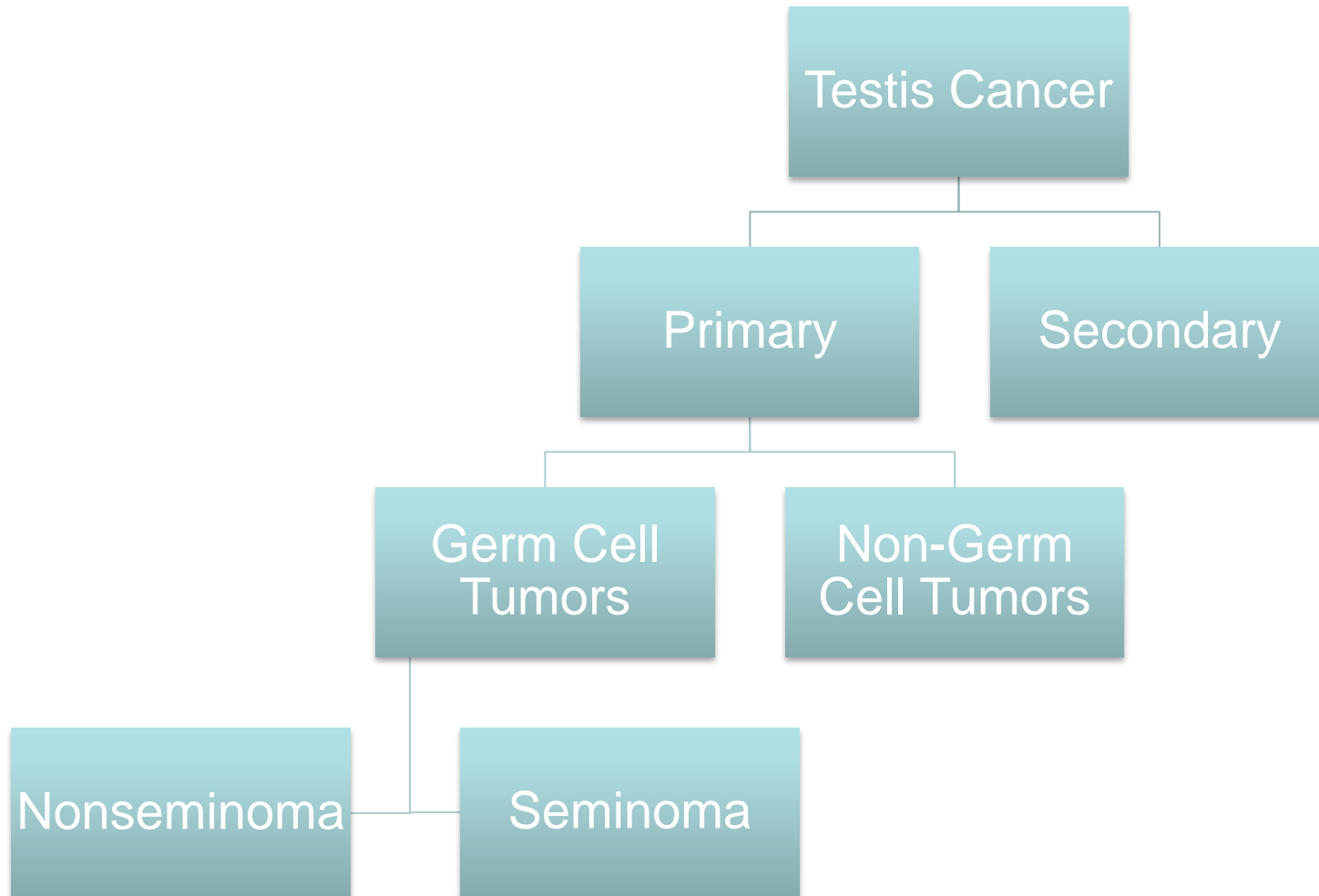
Malignancy

- Testis Tumor

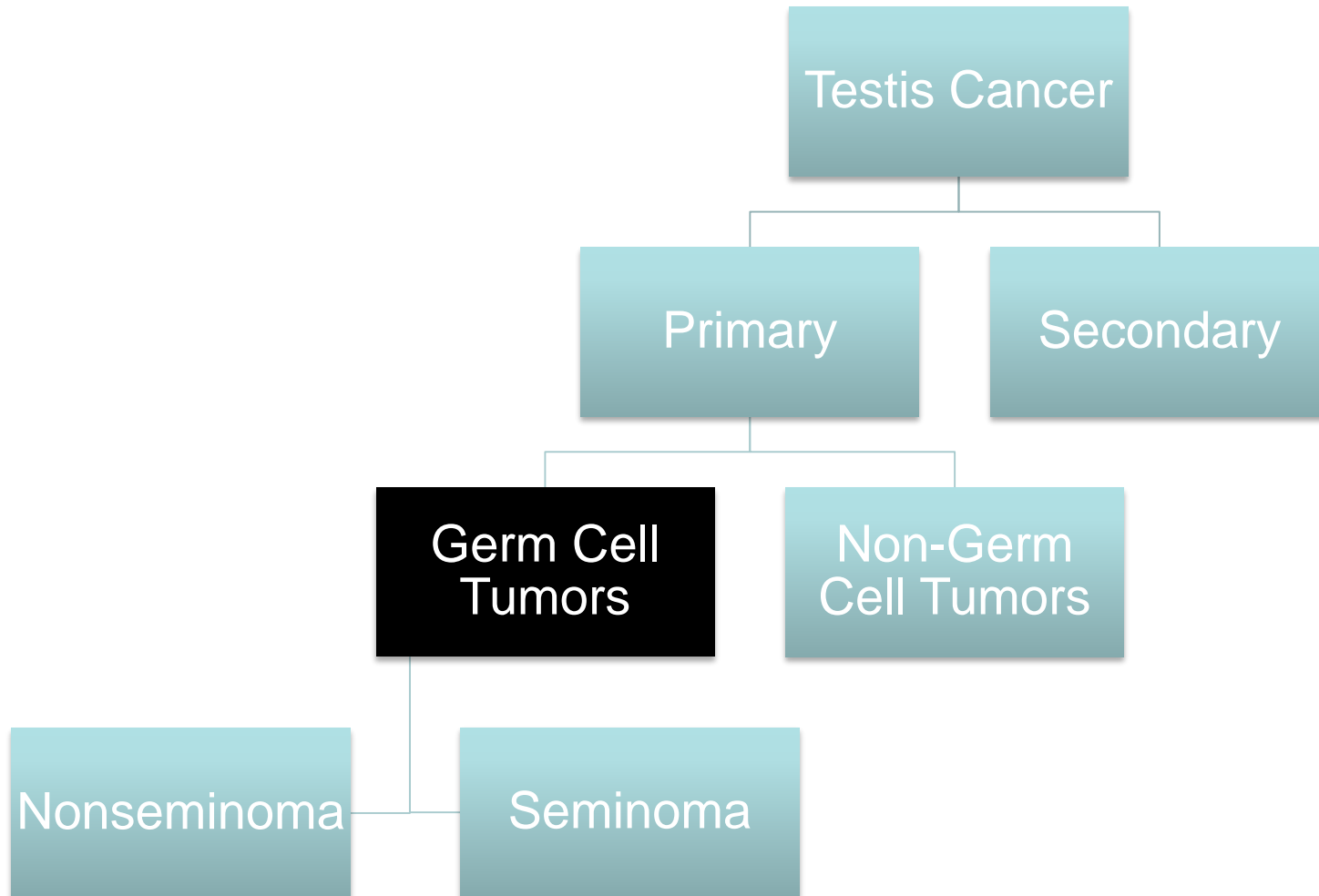
Testicular Cancer

- Typically occurs in young healthy Men.
- Very good cure rates Even for Metastatic Disease!

Testicular Cancer



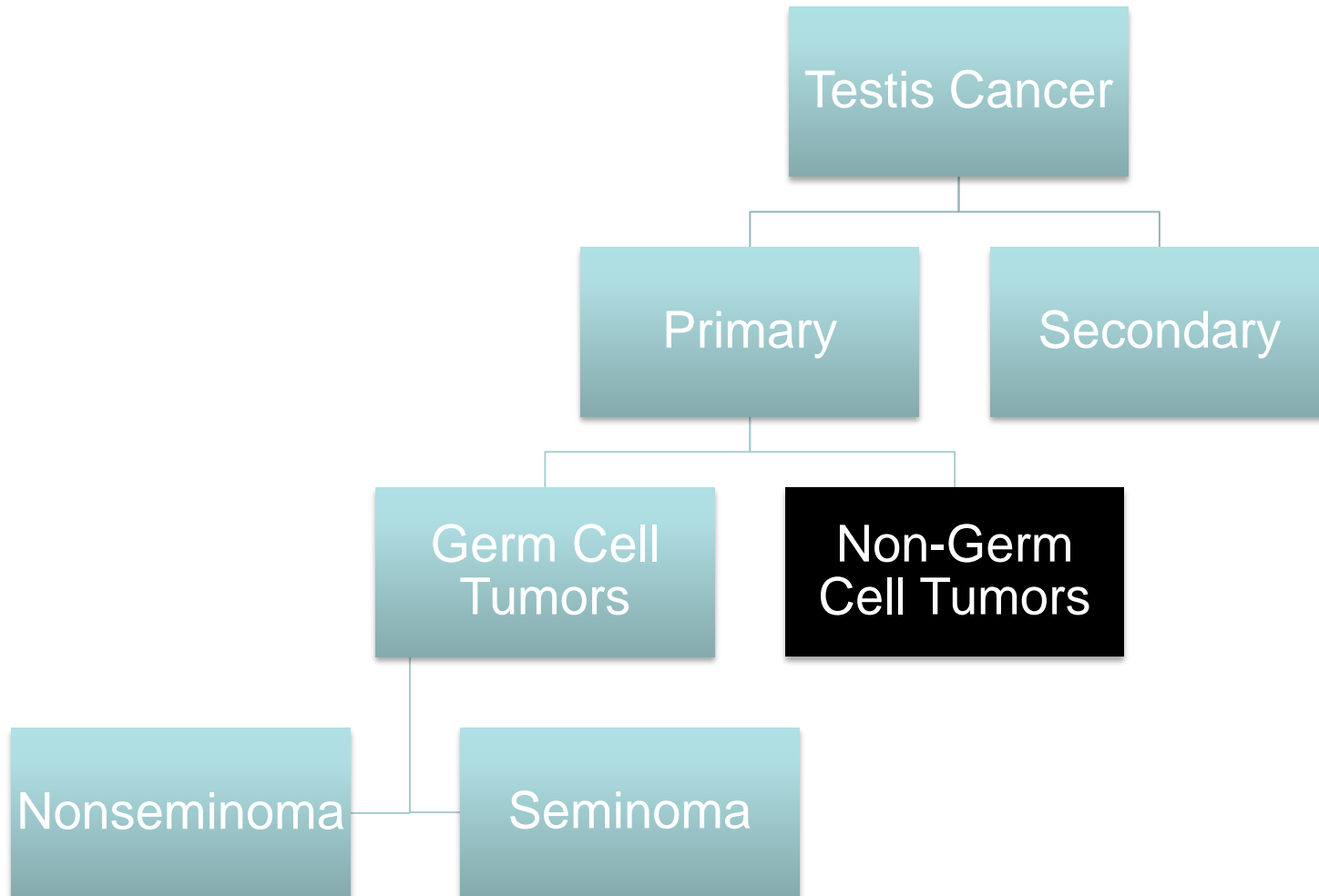
Testicular Cancer



Germ Cell Testicular Cancer

- Seminoma
- Non-Seminoma
 - Embryonal Carcinoma
 - Teratoma
 - Teratocarcinoma (Teratoma +Embryonal Carcinoma)
 - Choriocarcinoma
 - Yolk Sac Tumour (typically infants)

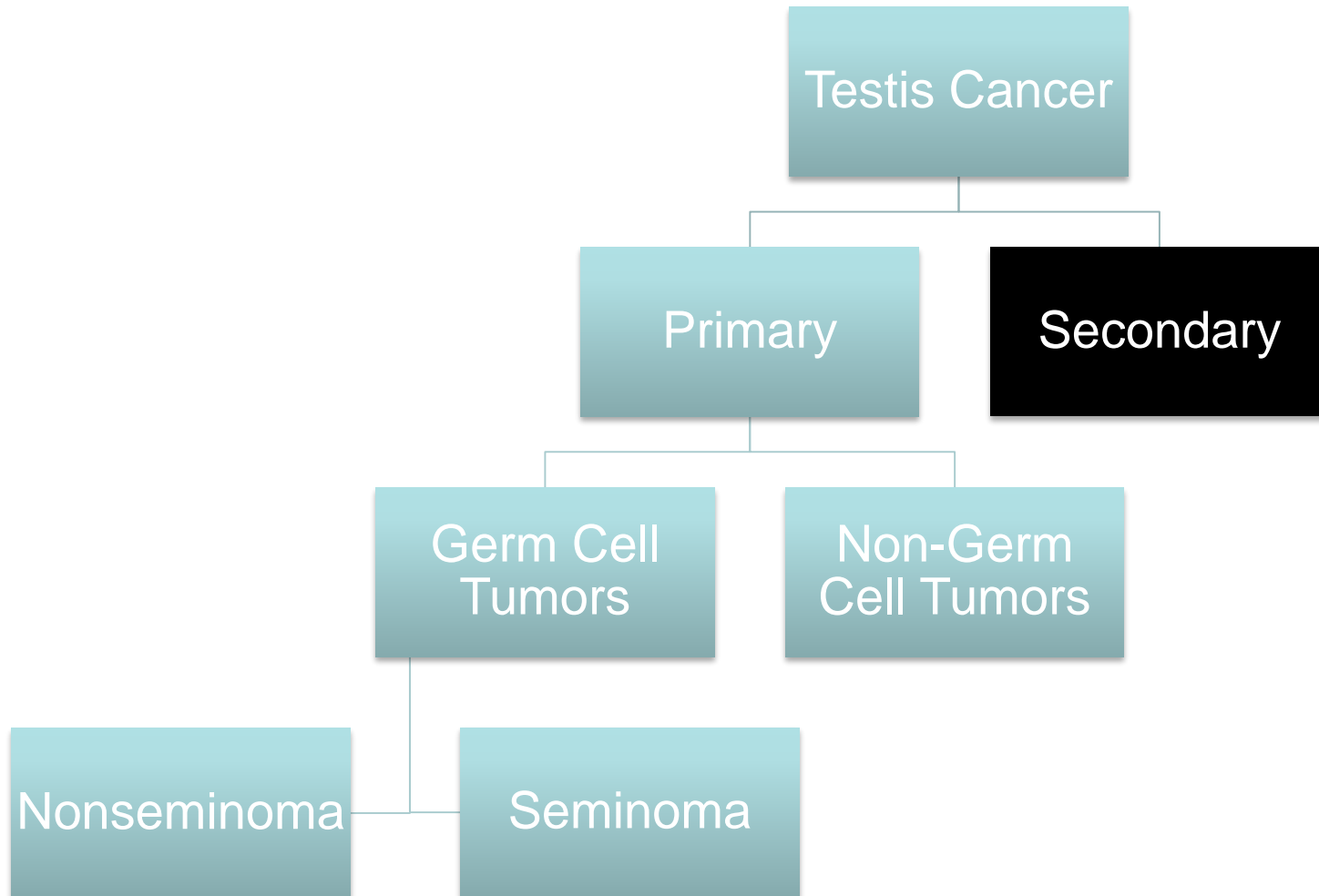
Testicular Cancer



Non-Germ Cell Testicular Cancer

- Leydig Cell Tumor
- Sertoli Cell Tumor

Testicular Cancer



Secondary Testicular Cancer

- Lymphoma
- Leukemia

Testicular Cancer

- Presentation
 - Typically painless intratesticular mass discovered on self examination
 - Age 15-35
 - Albeit some tumor subtypes cluster in infancy and some at later age (60's)

Testicular Cancer

- Investigations

- Labs

- B-HCG

- Produced by choriocarcinoma & in some Seminomas

- Alpha-fetoprotein

- Produced by Yolk Sac, Embryonal Carcinoma & Teratocarcinoma

- LDH

- Correlates with tumor volume

- Imaging

- Scrotal U/S

- CT Abdo and Pelvis: assess for retroperitoneal mets

- CXR

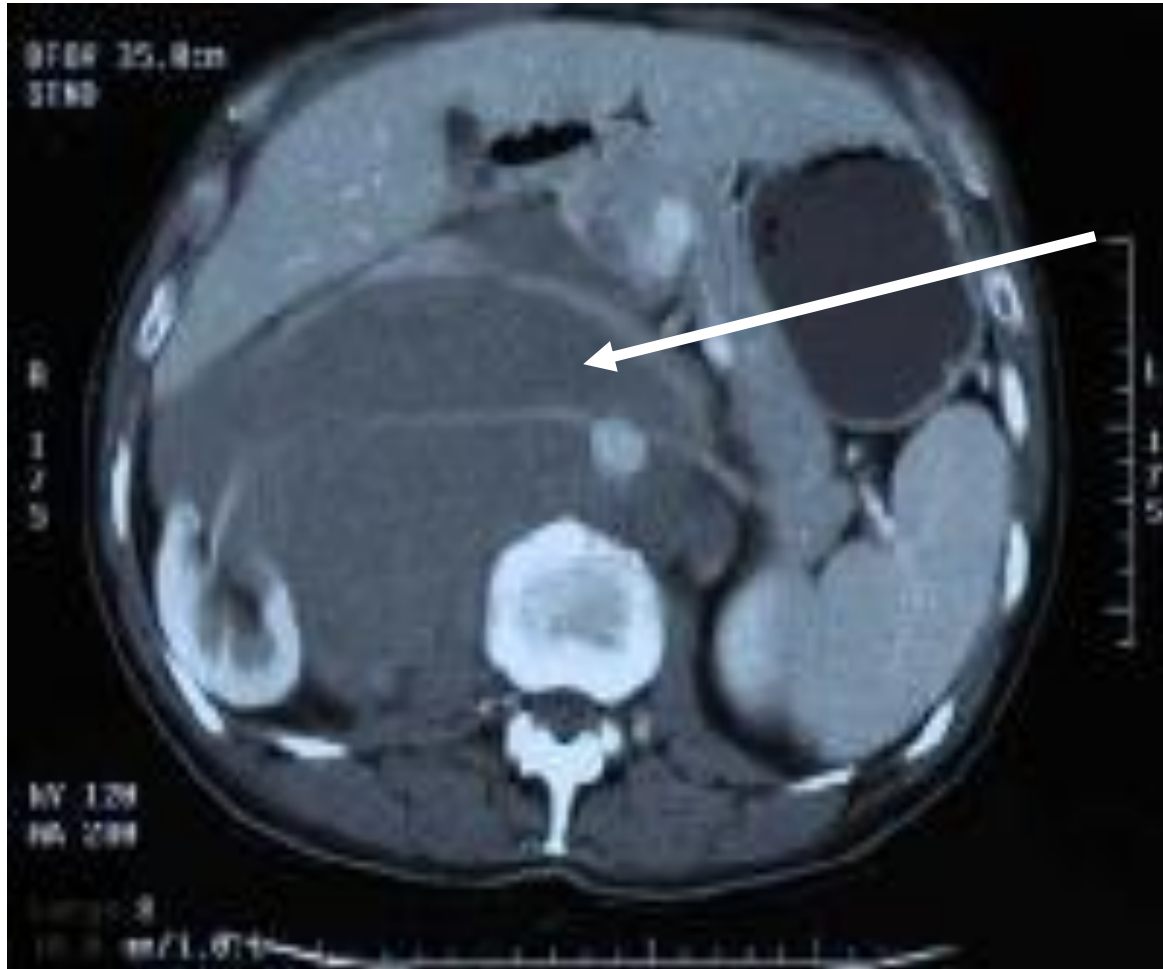
- +/- CT Head

Testicular Cancer

- Treatment:
 - Radical Orchiectomy
 - ALWAYS Inguinal approach
 - NEVER scrotal approach
 - PLUS...

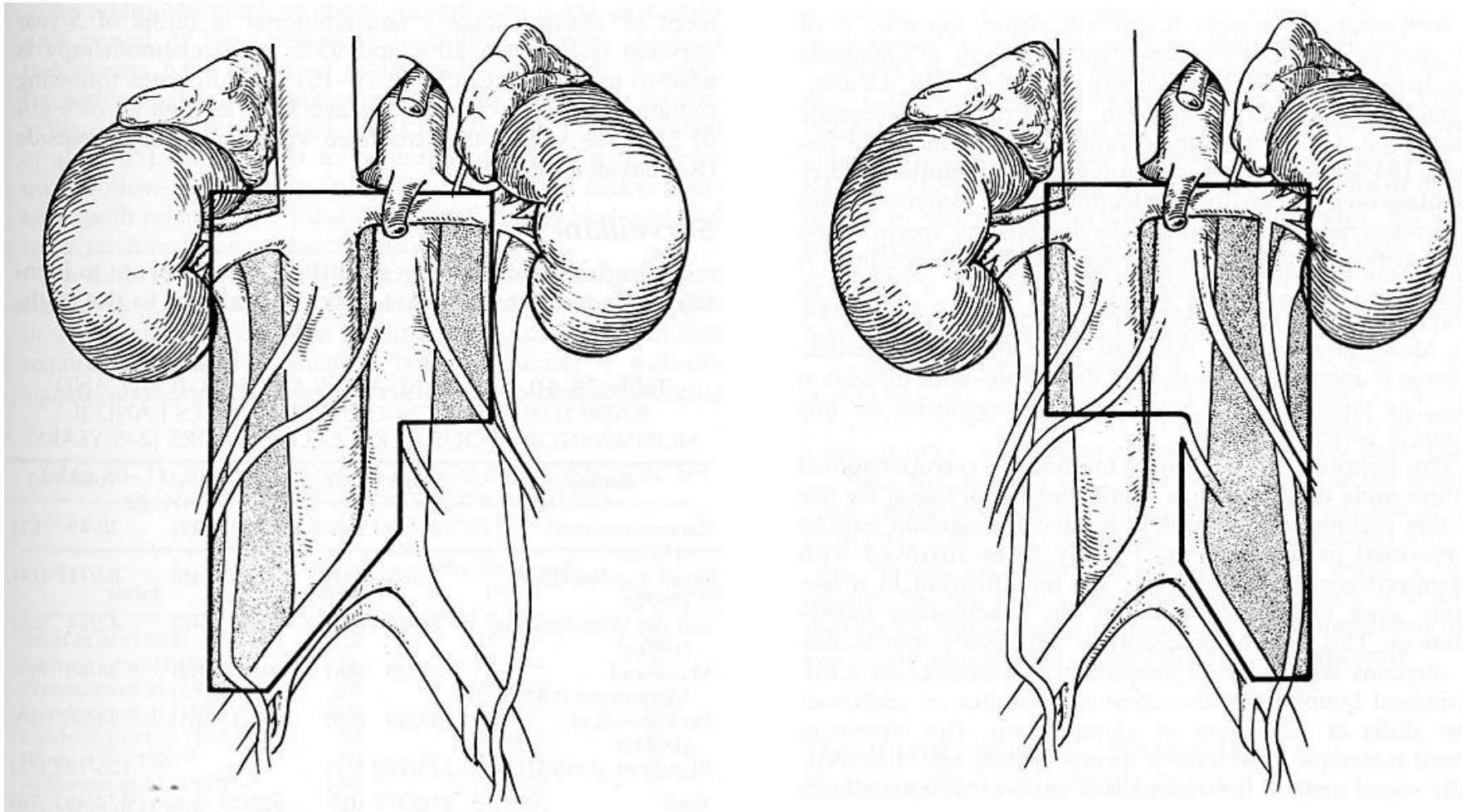


Staging



Large retroperitoneal mass in patient with right testicular NSGCT

Lymphatic Spread: RPLND



Differential Diagnosis of a Scrotal Mass

- hydrocoele
 - spermatocele
 - varicocele
 - testicular cancer
-
- epididymitis
 - testicular torsion
 - torsion of the testicular appendix

Acutely Painful Scrotum

In adolescents and young men, with no history of trauma, the possibilities include:

- Testicular Torsion
- Epididymitis
- Torsion of the Appendix Testis

Testicular torsion and torsion of the appendix testis are extremely uncommon in older men

Testicular cancer

- Age 15 – 35 yrs
- History of cryptorchidism or previous testicular cancer
- Painless
- Does not transilluminate
- Feels hard and irregular
- Constitutional symptoms (weight loss)

Self - Examination



Self – examination should be taught to young men

They need to be shown the difference between the testicle and the epididymis

They need to report any hard or suspicious lesions immediately