STANDARD TREATMENT WORKFLOW (STW)

Acute Scrotum in Children

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CITATION
DOI: https://doi.org/10.56450/JEFI.2024.v2i1Suppl.072
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Acute Scrotum in Children

ICD-10-N50.8

Differential Diagnosis of Acute Scrotum

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<thead>
<tr>
<th>Pathology</th>
<th>Frequency</th>
<th>Age at Representation</th>
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<td>Extravaginal torsion of testis</td>
<td>Uncommon</td>
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**Painful Scrotal Swelling - Decision Tree**

- **Acute Scrotum**

**TESTICULAR TORSION**
- Sudden onset of pain in testis, lower abdomen or groin
- Associated with nausea and vomiting
- Local palpation - Very painful
- Hernia defect - Reel and edematous, bluish discoloration (infarction of testis)
- Transverse lie of testis

**IDIOPATHIC SCROTAL EDema**
- Confusion with torsion of testis or its appendages
- Edema of scrotum with spread to or from inguinal region, penis, or perineum
- Cause of edema - May be bacterial cellulitis or a topical allergy

**MUMPS ORCHITIS**
- Presents post-pubertal testis

**DIFFERENTIATING CLINICAL FEATURES**

- **TORSION OF TESTICULAR APPENDAGE**
  - Sudden onset of pain of testis of less severe degree
  - A bluish black spot (blue dot) seen at the upper pole of the testis through the skin
  - Palpation of the testis less painful

- **EPIDIDYMITIS/EPIDIDYMO-ORCHITIS**
  - Inflammatory condition of the scrotum
  - Epididymitis alone is usually affected before puberty (0-6 months)
  - Epididymo-orchitis is more common after puberty
  - History suggestive of urinary tract abnormalities or urethral instrumentation
  - Infecting organism - Usually Escherichia coli

- **FAT NECROSIS**
  - Presents with signs of acute scrotal swelling
  - Before or after other systemic signs and symptoms
  - Most commonly bilateral and rarely painful

- **HENOCH SCHONLEIN PURPURA**
  - Presents with signs of acute scrotal swelling

**INVESTIGATIONS**

- **TESTICULAR TORSION**
  - Urgent cases
  - No investigations - Immediate scrotal exploration
  - Equivocal cases
  - Doppler study of scrotum
  - Radionucleide testicular scan

- **TORSION OF TESTICULAR APPENDAGE**
  - Mandatory - USG scrotum and Doppler examination
  - Desirable - Urine analysis

- **EPIDIDYMITIS/EPIDIDYMO-ORCHITIS**
  - Mandatory - Urine analysis
  - Desirable - Ultrasonography of scrotum

- **TESTICULAR TORSION**
  - Immediate scrotal exploration in golden window of 4-6 hours. If investigative facilities are not available
  - Clinical exploration if bell clapper deformity seen
  - Contralateral orchectomy if bell clapper anomaly on affected side
  - Orchidectomy preferable in older children if other tests a normal
  - Refer if no surgical facility available
  - Vascular prosthesis at a later date

- **TORSION OF TESTICULAR APPENDAGE**
  - Restricted activity
  - Warm compression
  - Anti-inflammatory drugs
  - If not differentiable from torsion testis - Exploration and excision of necrotic appendage

- **IDIOPATHIC SCROTAL EDema**
  - Anti-histammines
  - Topical corticosteroids

- **HENOCH SCHONLEIN PURPURA**
  - Supportive treatment
  - Rarely systemic corticosteroids

- **TESTICULAR TRAUMA**
  - Mostly supportive
  - Surgery if large hematocele
  - Urethral rupture on USG

**REFERENCES**


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