

STANDARD TREATMENT WORKFLOW (STW)

Acute Scrotum in Children

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Standard Treatment Workflow (STW)

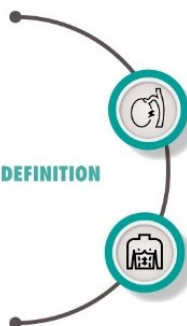
ACUTE SCROTUM IN CHILDREN

ICD-10-N50.8

DIFFERENTIAL DIAGNOSIS OF ACUTE SCROTUM

PATHOLOGY	FREQUENCY	AGE AT REPRESENTATION
Extravaginal torsion of testis	Uncommon	Perinatal period
Intravaginal torsion of testis	Common	Anytime, peak at 13-16 yrs
Testicular appendage torsion	Very Common	Anytime, peak at 11 yrs
Epididymitis/ Epididymo-orchitis	Rare	0-6 months
Mumps orchitis	Uncommon	Only after puberty
Idiopathic scrotal edema	Uncommon	0-5 yrs
Fat necrosis of scrotum	Rare	5-15 yrs
Henoch Schonlein Purpura	Rare	4-10 yrs
Testicular Trauma	Uncommon	Anytime, common in 5-15 yrs

DEFINITION



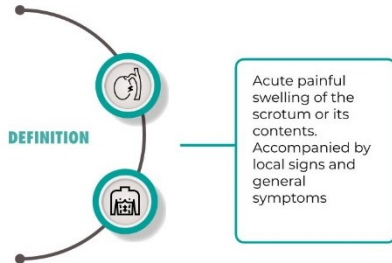
Acute painful swelling of the scrotum or its contents. Accompanied by local signs and general symptoms

Standard Treatment Workflow (STW) ACUTE SCROTUM IN CHILDREN

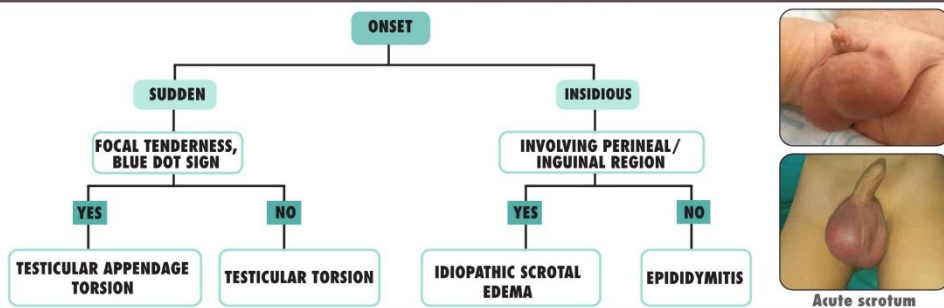
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PAINFUL SCROTAL SWELLING - DECISION TREE



DIFFERENTIATING CLINICAL FEATURES

<p>TORSION TESTIS</p> <ul style="list-style-type: none"> Sudden onset of pain in testis, lower abdomen or groin Associated with nausea and vomiting Local palpation – Very painful Hemiscrotum – Red and edematous, bluish discoloration (Infarction of testis) Transverse lie of testis Absent cremasteric reflex 	<p>TORSION OF TESTICULAR APPENDAGE</p> <ul style="list-style-type: none"> Sudden onset pain but 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 	<p>EPIDIDYMITIS/EPIDIDYMO-ORCHITIS</p> <ul style="list-style-type: none"> Inflammatory condition of the scrotum Epididymis 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 <i>Escherichia coli</i> 	
<p>MUMPS ORCHITIS</p> <ul style="list-style-type: none"> Affects post-pubertal testis 	<p>IDIOPATHIC SCROTAL EDEMA</p> <ul style="list-style-type: none"> Confused 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 	<p>FAT NECROSIS</p> <ul style="list-style-type: none"> Sudden appearance of tender bilateral lumps in scrotal skin Affected boys are often obese History of swimming in cold water 	<p>HENOCH-SCHONLEIN PURPURA</p> <ul style="list-style-type: none"> Present with signs of acute scrotal swelling Before or after other systemic signs and symptoms Most commonly bilateral and rarely painful

INVESTIGATIONS

<p>TESTICULAR TORSION IS MOST IMPORTANT CONDITION TO RULE OUT</p> <ul style="list-style-type: none"> Unequivocal cases No investigations- Immediate scrotal exploration Equivocal cases Doppler study of scrotum Radionuclide testicular scan 	<p>TORSION OF TESTICULAR APPENDAGE</p> <ul style="list-style-type: none"> Mandatory- USG scrotum and Doppler scrotum Desirable-Urine analysis 	<p>EPIDIDYMO-ORCHITIS</p> <ul style="list-style-type: none"> Mandatory- Urine analysis Desirable - Ultrasonography of scrotum 	<p>TESTICULAR TRAUMA</p> <ul style="list-style-type: none"> Mandatory: USG scrotum
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TREATMENT

<p>TESTICULAR TORSION</p> <ul style="list-style-type: none"> Immediate scrotal exploration in golden window of 4-8 hours if investigative facilities not available Clinical exploration if bell clapper deformity seen Contralateral orchiopexy if bell clapper anomaly on affected side Orchidectomy preferable in older children if other testis is normal Refer if no surgical facility available testicular prosthesis at a later date 	<p>TORSION OF TESTICULAR APPENDAGE</p> <ul style="list-style-type: none"> Restricted activity Warm compression Anti inflammatory drugs If not differentiable from torsion testis- Exploration and excision of necrotic appendage 	<p>IDIOPATHIC SCROTAL EDEMA</p> <ul style="list-style-type: none"> Anti-histaminics Topical corticosteroids 	<p>HENOCH-SCHONLEIN PURPURA</p> <ul style="list-style-type: none"> Supportive treatment Rarely systemic corticosteroids 	<p>TESTICULAR INJURY</p> <ul style="list-style-type: none"> Mostly supportive Surgery if large hematoma/ tunica albuginea rupture on USG
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KEEP A HIGH THRESHOLD FOR INVASIVE PROCEDURES

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