

ORCHIDOPEXY

MODULE: UROLOGY

TARGET: CT1 – ST3

BACKGROUND:

Possible testicular torsion is a common condition encountered on the surgical take. Many scrota are explored in order to exclude this important condition. It often falls to a junior surgical trainee who may not have extensive urological experience, due to cross-covering of other specialties out of hours. Frequent technical difficulties include not opening all of the layers in order to deliver the testicle, inadequate 3 point fixation, difficulties with orientating the testicle and difficulties reducing the testicle back into the scrotal sac.

RELEVANT AREAS OF THE CURRICULUM

The ISCP states that by the end of CT2 the trainee should be a safe and useful assistant in the operating room and be able to perform some simple procedures under minimal supervision and perform more complex procedures under direct supervision.

Module 2: Common surgical conditions

- Scrotal swellings
- Testicular pain

Module 3: Basic surgical skills

- To handle surgical instruments safely
- To handle tissues safely
- To incise and close superficial tissues accurately
- To tie secure knots
- To assist helpfully, even when the operation is not familiar

INFORMATION FOR FACULTY

Faculty should set up the testicles on cork boards with the skin pinned down to the cork board covering the testicle. If there is insufficient skin then place the testicle inside a surgical glove. It may be possible to also perform a Jaboulay procedure using these materials – after tying off the cord inject ware under the tunica vaginalis.

LEARNING OBJECTIVES

- To know the anatomy of the scrotum including layers of the testicle
- To know the steps of orchidopexy
- To be able to safely dissect out structures using a combination of sharp and blunt dissection
- To perform a continuous suture maintaining tension along it
- To perform interrupted sutures using both hand tied and instrument tied knots
- To perform a subcuticular skin closure

SCENE SETTING

Location: Bench-top laboratory setting
Expected duration of scenario: 45 mins & Ongoing technical feedback throughout procedure

EQUIPMENT AND CONSUMABLES

Non-sterile gloves
Clinical waste bags for disposal
Inco pad / sheet
Cork boards
Drawing pins - box
Number 10 scalpel blade
Scalpel handle No. 3
Sharps bin
Swabs - small
Kidney dish
Needle holders
Gilles toothed forceps
Debakey forceps
McIndoe scissors
4 x Mosquito clips
3/0 prolene suture
2/0 Vicryl suture
3/0 Vicryl rapide
Straight Mayo scissors
3/0 Monocryl or Vicryl rapide on either a straight or curved needle x 1
Lambs testicles with as much overlying skin as possible – may need to shave wool off – try local abattoir
(Fresh Tissue Supplies will provide porcine testicles at £10 a pair but these are VERY large)
Paper and pen for writing op note

PARTICIPANT BRIEFING

This patient has attended as an emergency with a high lying painful testicle. Please perform a scrotal exploration and orchidopexy.

The surgical glove 'scrotal skin' has been opened to find the testicle with its associated coverings



FACULTY BRIEFING

Please give both generic and specific feedback upon trainees suturing skills.

ADDITIONAL INFORMATION

The purpose of this simulation is to train generic techniques – continuous, interrupted, subcuticular, dissection and knot tying.

Other specific areas for learning are 3D anatomy of the scrotum and steps of orchidopexy

DEBRIEFING

POINTS FOR FURTHER DISCUSSION

Pay attention to knot tying technique, especially with prolene – are all of the knots secure? How many throws?

Maintaining tension along continuous suture – work with your assistant

Identification of the layers of the testicle

Ergonomics and pronation / supination when suturing

SURGERY > TECHNICAL SCENARIO 6 > ORCHIDOPEXY

INFORMATION FOR PARTICIPANTS

KEY POINTS

Unbraided sutures need more throws aim for 7 with prolene
Security and construction of knots particularly important with prolene
Layers of testicle
Steps of orchidopexy
Operation note – including post-op care

RELEVANCE TO THE CURRICULUM

Module 2: Common surgical conditions

Scrotal swellings
Testicular pain

Module 3: Basic surgical skills

To handle surgical instruments safely
To handle tissues safely
To incise and close superficial tissues accurately
To tie secure knots
To assist helpfully, even when the operation is not familiar

WORKPLACE-BASED ASSESSMENTS

There is a PBA for Hydrocoele repair on the ISCP that may be used in a modified form during this simulation exercise

Urology PBA: Hydrocele Repair		
Trainee:	Assessor:	Date:
Assessor's Position*:	Email (institutional):	GMC No:
Duration of procedure (mins):	Duration of assessment period (mins):	Hospital:
Operation more difficult than usual? Yes / No (If yes, state reason)		<input type="checkbox"/> Tick this box if this PBA was performed in a Simulated setting .

* Assessors are normally consultants (senior trainees may be assessors depending upon their training level and the complexity of the procedure)

IMPORTANT: The trainee should explain what he/she intends to do throughout the procedure. The Assessor should provide verbal prompts if required, and intervene if patient safety is at risk.

Rating:

N = Not observed or not appropriate

D = Development required

S = Satisfactory standard for CCT (no prompting or intervention required)

Competencies and Definitions		Rating N/D/S	Comments
I. Consent			
C1	Demonstrates sound knowledge of indications and contraindications including alternatives to surgery		
C2	Demonstrates awareness of sequelae of operative or non operative management		
C3	Demonstrates sound knowledge of complications of surgery		
C4	Explains the perioperative process to the patient and/or relatives or carers and checks understanding		
C5	Explains likely outcome and time to recovery and checks understanding		
II. Pre operation planning			
PL1	Demonstrates recognition of anatomical and pathological abnormalities (and relevant co-morbidities) and selects appropriate operative strategies/ techniques to deal with these e.g. nutritional status		
PL2	Demonstrates ability to make reasoned choice of appropriate equipment, materials or devices (if any) taking into account appropriate investigations e.g. x-rays		
PL3	Checks materials, equipment and device requirements with operating room staff		
PL4	Ensures the operation site is marked where applicable		
PL5	Checks patient records, personally reviews investigations		
PL6	Examines the patient pre operatively and confirms that the operation is indicated		
III. Pre operative preparation			
PR1	Checks in theatre that consent has been obtained		
PR2	Gives effective briefing to theatre team		
PR3	Ensures proper and safe positioning of the patient on the operating table		
PR4	Demonstrates careful skin preparation		
PR5	Demonstrates careful draping of the patient's operative field		
PR6	Ensures general equipment and materials are deployed safely (e.g. catheter, diathermy)		
PR7	Ensures appropriate drugs administered		
PR8	Arranges for and deploys specialist supporting equipment (e.g. image intensifiers) effectively		
IV. Exposure and closure			
E1	Demonstrates knowledge of optimum skin incision / portal / access		

PARTICIPANT REFLECTION

What have you learned from this experience? (Please try and list 3 things)

How will your practice now change?

What other actions will you now take to meet any identified learning needs?

PARTICIPANT FEEDBACK

Date of training session:.....

Learner grade:.....

	Strongly Agree	Agree	Neither agree nor disagree	Disagree	Strongly Disagree
I found this skills simulation useful					
I understand more about the simulation subject					
I have more confidence to deal with this operative case					
The material covered was relevant to me					

How could this simulation be improved for future participants? This is especially important if you have ticked anything in the disagree/strongly disagree box.

FACULTY DEBRIEF – TO BE COMPLETED BY FACULTY TEAM

What went particularly well during this simulation?

What did not go well, or as well as planned?

Why didn't it go well?

How could the simulation be improved for future participants?