

MODULE 8

Trunk, Perineum & Breast

TRUNK, PERINEUM AND BREAST

15.02.05

Preamble - Objectives and Outcomes

ALSO SEE [OVERALL PREAMBLE](#) (hypertext link on webpage)

At the time of presentation to the final FRACS exam, the candidate should be aware of the surgical management of congenital, acquired and aesthetic conditions of the trunk, perineum and breast.

Candidates who are particularly interested in plastic surgery of the breast should proceed to an advanced Reconstructive Fellowship and/or an advanced Aesthetic Fellowship.

The graduating trainee will:

- maintain currency of knowledge
- accurately identify, assess and manage risks
- consider all issues relevant to the patient
- manage patients in ways that demonstrate sensitivity to their physical, social, cultural and psychological needs
- adapt their skills in the context of each patient and each procedure
- communicate information to patients (and with consent of their family) about procedures, potentialities, and risks associated with surgery in ways that encourage their participation in informed decision making
- effectively manage complications
- analyse their own clinical performance for continuous improvement

Resources

In-hospital training posts will provide the bulk of the exposure to this material. Particular opportunity should be taken to attend combined clinics with breast surgery.

Suggested Reading

Plastic Surgery – Indications, Complications and Outcomes – Vol 4,B Achauer, (Ed) Mosby 2000

As candidates are expected to read widely, further Reference sources may include:

- Plastic and Reconstructive Breast Surgery
Volumes I and II, Bostwick (Ed), QMP 1990
- Surgery of the Breast – Principles and Art, Spear (Ed, Lippincott-Raven 1998
- Vertical Mammoplasty and Liposuction , LeJour, QMP 1994
- Mathes and Nahai, particularly for muscle flaps
- Cormack and Lamberty, particularly for vascular anatomy and skin flaps
- Relevant Journal Publications
Plastic and Reconstructive Surgery
British Journal of Plastic Surgery
Annals of Plastic Surgery
Clinics of Plastic Surgery
Burns
Journal of Trauma
- Access to a Publishing Medical Searching facility.

Delivery of this module

- Literature review
- Clinical experience including in clinics, peri-operative care on the ward and in the operating theatre.
- Meetings- Annual registrars' meeting, RACS Annual Scientific Congress, ASAPS
- Courses- EMST (part 1 component) and other courses and workshops offered under the auspices of ASPS, ASAPS or RACS.

Assessment methods used for this module

- Clinical assessment and mentors reports throughout training
- Report from the Regional Supervisor of Surgical Training
- Logbook assessment
- Final Fellowship Examination in Plastic & Reconstructive Surgery including written questions, long and short case clinical examinations, vivas in surgical and applied anatomy and operative surgery and pathology.

Coding Used:

A = Aesthetic

C = Congenital and Paediatric

I = Inflammatory and Infection

N = Neoplastic & Tumours

D = Degenerative Conditions

P = Procedures and Techniques

T = Trauma

Levels of knowledge required are as follows:

Revisional Knowledge - Much of the basics in this will have already been covered in Plastic & Reconstructive Surgical Science and Principles Examination. Trainees are required to be able to analyse and apply appropriately the science and principles of the following in clinical environments:

<i>Embryology</i>	C
- urogenital embryology – male, female, androgenic influence	
- breast embryology	
<i>Maturational Stages of Growth (including pregnancy and ageing)</i>	D
- urogenital	
- breast	
- abdominal wall	
<i>Congenital Defects and their classification</i>	C
- spina bifida	
- gastroschisis, omphalocele, Prune-belly	
- pectus excavatum, pectus carinatum, Poland syndrome.	
- urogenital – developmental anomalies	

Anatomy

- breast- skin, ligaments, gland, vascular, neural, lymphatics.
- axillary nodal and vascular anatomy
- chest wall – skeletal, muscles, vascular anatomy
- intra-thoracic - internal mammary vessels, pleura
- abdominal wall muscles and vascular anatomy
- intra-abdominal – omentum, peritoneum, jejunum
- perineum
- urogenital - glans, corona, prepuce, corpora cavernosum and spongiosum
 - fascial layers – Bucks, dartos
 - neurovascular supply
- hip region – osteology, vascular, muscles

Pathology

- breast tumours – benign, premalignant, malignant N
- perineal tumours N
- principles of sentinel node mapping N

Surgical Principles

- clinical examination of breast ,perineum, abdomen and back P
- radiotherapy N
- tissue expansion and liposuction principles P
- orientation of incisions and scar management P
- Emergency Management of Severe Trauma Course, Emergency Management of Severe Burns Course T
- routine infection and haematoma management I
- pressure ulcer classification, aetiology, prevention and pre-operative evaluation I
- patient risk factors (smoking, high BMI, diabetes etc)
- breast tumour diagnosis and treatment options N
- anaesthesia and pain relief principles
- antibiotic prophylaxis I
- management of pneumothorax T
- management of abdominal wall hernias D
- microsurgical principles

Surgical Documentation / Audit

- note keeping
- photography

Principles of Risk Management

- informed consent (surgical and financial)
- discharge planning
- managing complications
- medicolegal responsibilities
- workplace accreditation
- Continuing Professional Development activities

Core Knowledge - A detailed knowledge in these areas will be expected. All trainees are required to be able to diagnose, plan, perform effectively and manage:

Core Knowledge – Trunk

Sternal defects (congenital and acquired)

- pectus excavatum, pectus carinatum, Poland's syndrome, infection, tumour, post cardiac surgery C
- principles of chest wall reconstruction P
- flap procedures – lat dorsi, pec major, omental, rectus abd, trapezius

Abdominal defects (congenital and acquired)

- gastrochisis, omphalocele, Prune-Belly, tumour, infection, trauma, hernia C
- principles of abdominal wall reconstruction P
- techniques – closure, grafts, expansion, alloplastics P
- Tensor fascia lata, rectus abdominus, external oblique, latissimus dorsi flaps

Back defects (congenital and acquired)

- spina bifida, trauma, tumour C
- principles of posterior trunk reconstruction P
- techniques – debridement, closure, graft, flaps P

Hip region reconstruction

- post trauma conditions T
- hip replacement wound problems
- tumour excision N
- accident related conditions T
- Flaps:
- rectus femoris P
- vastus lateralis

Necrotising soft tissue infections

- diagnose and manage necrotising soft tissue infections I

Abdominoplasty

- classify degree of laxity – skin and fat A
- rectus divarication
- describe in detail the anatomy (and variations)
- identify operative objectives:
 - o incision type
 - o suction lipectomy
 - o mini abdominoplasty
 - o full abdominoplasty
 - muscle plications
 - muscle advancements
 - o encircling truncal reshaping principles
 - o closure techniques
- manage complications

Contouring with liposuction

- identify/discuss indications A
- patient evaluation
- perform appropriate operative techniques P
 - dry, wet, tumescence
 - infiltrations
 - Suction assisted lipoplasty
 - Ultrasound assisted lipoplasty
- manage post-operative care including complications

Core Knowledge – Perineum

Hypospadias repair

- Passing knowledge of historical and staged techniques C
- Recent techniques
 - Duckett, Horton flip-flap

- Tube graft, pedicled tube flap
- Current techniques
 - Staged
 - Durham-Smith, Bracka
 - Snodgrass TIP
 - MAGPI (Meatal Advancement and Glansplasty)
- Relevant features of some the techniques
 - Longitudinal incision of urethral plate
 - Healing properties of a healthy urethral plate
 - Waterproofing layers
 - Dorsal plication (Nesbit)
 - Cosmesis
 - Graft donor sites
 - cheek, bladder mucosa, prepuce
- Current Goals
 - Straight stream and erection
 - Terminal and vertical meatus
 - Glans cosmesis
 - Single stage when able
 - "planned " two stage surgery when needed

Circumcision

- Any safe technique
- Conservative circ vs radical
- Tailoring the foreskin

C

Phallic reconstruction principles

- patient indications – trauma, burns, tumour

T

Vaginal disorders and reconstruction principles

- evaluate patient indications and assess treatment options- congenital, gender reassignment, surgical resection
- explain reconstructive principles

C

P

Vulval defects and reconstruction principles

- post tumour extirpation
- reconstructive principles
- specific graft, flap options

N

P

P

Pelvic wall reconstruction principles

- evaluate patient indications and explain management principles for
 - tumour ablation
 - traumatic
 - post infective

N

T

I

Perineal trauma management principles

- evaluate patient indications and explain management principles for
 - o surgical scarring
 - o burns
 - o trauma – penile amputation
 - o avulsion injuries

T

T

Core Knowledge – Breast

Breast

- principles of aesthetics and breast ageing
- breast disorders – developmental
 - amastia, polymastia, hypoplasia
- treatment options and management of:
 - o Poland's syndrome
 - o hypertrophy
 - o tuberous
 - o tumours
 - o gynaecomastia

C

C

C

N

Breast reconstruction

- effectively counsel patients
- select appropriate techniques
- discuss timing (prophylactic, immediate, delayed)
- assess patient and risk factors
- influence of adjuvant therapies
- radiation effects
- mound reconstructive techniques
 - tissue expander/implant
 - flap/implant
 - flaps
 - abdominal donor
 - back donor
 - pelvic girdle donor
 - contralateral breast donor
 - transfer techniques
 - pedicled
 - pedicled plus anastomoses
 - free
 - donor closure techniques
- nipple areolar complex reconstructive techniques
 - nipple
 - flap
 - sharing technique
 - areolar
 - graft
 - tattoo
- manage outcomes/complications
- diagnose and manage contralateral breast

Breast Reduction

- assess patient and risk factors
- informed decision making
- define operative objectives
- analyse treatment options and anaesthetic choices
- explain risks
 - shape
 - symmetry
 - scars
 - breast feeding
 - re hypertrophy
- operative techniques
 - nipple pedicle orientation
 - parenchymal shaping
 - excisional
 - suspension
 - liposuction
 - skin incisions
- effectively manage complications
 - infection
 - haematoma
 - skin necrosis
 - fat necrosis
 - nipple –areolar loss
 - nipple sensation loss
- effectively perform secondary surgery when needed

Breast augmentation

- assess patient and risk factors
- informed decision making, including risks and complications
- define aesthetic objectives

- analyse treatment options and anaesthetic choices (local, neurolept, general anaesthesia)
- operative techniques P
 - incisions – inframammary, areolar, axillary
 - plane of implant pocket – subpectoral, subfascial, sub glanular
 - endoscopic
- manage complications
 - positional
 - shape
 - size
 - bleeding, haematoma
 - infection
 - scar hypertrophy
 - implant rupture, failure, extrusion
 - galactorrhoea
 - nipple sensation
 - Mondor's disease – vein thrombosis
 - capsule formation
 - pneumothorax
- classify and manage capsular contracture
- effectively perform secondary surgery when needed

Mastopexy

- classify breast ptosis A
- assess patient and risk factors
- define aesthetic objectives
- analyse treatment options and anaesthetic choices
- discuss longevity of various operative options
- operative techniques P
 - skin incisions
 - parenchymal shaping
 - excisional
 - flap rearrangement
 - augmentation options
- identify and manage complications,
- effectively perform secondary surgery when needed

Gynaecomastia

- aetiology and classification A
- interpret pre-operative investigations
- operative techniques
 - surgical +/- liposuction
- identify and manage complications

Outline Knowledge - In this area the principles are required, but not a detailed knowledge such that the candidate would be in a position to manage the condition alone. Therefore, trainees are expected to be able to discuss the outline of management of:

Outline Knowledge – Trunk, Perineum and Breast

- understand
 - o Chest wall reshaping with complex procedures P
 - o Sarcoma management N
 - o Uncommon perineal, urogenital tumours N
- complex perineal reconstruction P
- pelvic wall reconstruction P
- encircling truncal surgery P
- endoscopic techniques for ;
 - o flap harvest
 - o abdominal muscle tightening

- breast implant placement
- breast tumour pathology N
- sentinel node diagnosis for breast tumours N
- adjuvant breast cancer treatment N
- breast sharing operations P
- discuss/explain in detail uncommon perforator flap harvest C
- hypospadias repair complications
 - fistula
 - bleeding
 - residual chordee
 - torsion
 - cosmesis
 - complete dehiscence
- epispadias
- Peyronie's disease
 - Bucks fasciectomy vs fasciotomy
 - Plication vs dermal grafting
 - Impotence rates
- phallic reconstruction
 - glans resurfacing
 - glansectomy
 - total phallic reconstruction
- gender reassignment