Prolapse and Incontinence Update

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Learning objectives:

At the end of the workshop the general practitioner should be able to:

- Assess the extent and significance of pelvic dysfunction
- Understand the management including diagnosis, treatment and follow up of a patient with prolapse or incontinence and
- Understand the potential side effects of treatment for patients with prolapse and incontinence.

Patient's safety through system base approach:

It is important for the GPs to obtain an understanding of the management of patients with prolapse and incontinence, as they will be involved with patients' ongoing management on day to day basis. For example, having knowledge of the pathophysiology as well as the consequences of surgery will enable GPs to support patient's physical and psychological needs at coping with their diagnosis and treatment. Special issues such as returning to normal activities including sexual function after pelvic surgery will be addressed.

(Please refer to the example patient advice to minimize post operative complications on the last page of this handout)

Brief presentation summary:

The lecturer will address the management steps of prolapse and incontinence, specifically looking at:

- Presenting symptoms and signs
- Pathology and pathophysiology
- Economic burden on Australian Health budget

Relationship between prolapse and incontinence

- Different treatment options and modalities for pelvic dysfunction
- Preparing for surgery
- Minimising treatment complications
- Follow-up examination and care

At the end of the talk the GP should obtain an appreciation of pelvic dysfunction, enabling GPs to assist in a patient's management before, during and following treatment.

Presentation Summary

Chiarelli et al have evaluated the cost of incontinence in Australia.

Prolapse is present in a significant proportion of women. The lifetime risk of a patient needing prolapse surgery is **11% and 30% will require repeat surgery.**

There is consensus that pelvic dysfunction is due to anatomical disruption but there are various opinions as to the nature of the problem and the relationship of the problem to childbirth and other causative factors.

Clinical Presentation is determined by the location and consequences of the anatomical damage.

ANATOMICAL DEFECT	CLINICAL PRESENTATION
Urethral support	Incontinence
Apical support	Procidentia, Enterocoele
ANTERIOR FASCIA central or lateral	Cystocoele
Posterior fascia	Rectocoele ODS

Pathogenesis of prolapse:

- Childbirth
- Connective tissue factors
- Menopause
- Chronic elevation of intra-abdominal pressure
- Latrogenic (Hysterectomy)

Pathogenesis of recurrent prolapse:

- Poor surgical technique
- Perioperative infection or haematoma
- Patient factors – coughing, vomiting, straining, lifting
- Poor connective tissue
- Denervation LA denervation present in 50% of symptomatic prolapse

Principles of Pelvic Reconstruction:

- Restore normal anatomy
- Restore urinary and faecal continence
- Maintain coital function
- Correct co-existing pelvic pathology
- Obtain a durable result.

Surgical options:

- Colporrhaphy
- Colposuspension
- Abdominal sacrocolpopexy
- Mesh reinforcement
- Absorbable mesh
- Biological mesh
- Polypropylene

Scientific basis of prolapse and incontinence surgery

- Enhorning Theory
- Integral Theory of Petros and Ulmsten

Anatomical basis of prolapse and incontinence
The anatomical damage in the pelvis may involve bone, muscle, ligaments or fascia.

Soft tissues make up a continuum of collagen, elastin and muscle.

The key muscular structure is the levator muscle which forms the levator hiatus.

The levator hiatus is innervated by the pudendal nerve.

Three levels of support connect these components in an integrated system.

Level 1 – suspension
Level 2 – attachment
Level 3 – fusion

Prolapse reflects structural failure.
Incontinence or obstruction of urine or faeces is a functional defect usually secondary to anatomical damage.

Enhorning Theory
Integral Theory of Petros and Ulmsten

Implantation of prosthetic material leads to an ongoing fibrotic reaction and creation of collagen to replace damaged ligaments and fascia.

Surgical correction aims to restore original anatomy

Clinical assessment will give a general idea of support and identify focal defects

Speculum examination enables inspection of anterior middle and posterior compartments.

Ultrasound is helpful to identify bladder neck mobility and quantify prolapse

MRI is expensive and less practical than ultrasound at present

Referral for prolapse repair

Main indication is symptoms of prolapse or complications of prolapse

Symptoms include pressure, external bilge, discomfort, back pain, bladder or bowel dysfunction

Conservative treatment:

General measures:

- Hormone replacement
- Electromagnetic therapy
- Physiotherapy
- Diet, nutrition
- Lifestyle modification

Proactive treatment:

- Focal surgery
- Global reconstruction
- Anatomical restoration

Decision making

Ultrasound
Proctography
Urodynamics

Evolution of mesh treatments:

1. suburethral slings
2. posterior IVS
3. mesh reinforcement
4. mesh replacement
5. total reconstruction

Preparation for surgery

- General health
- Weight loss
- Cessation of Smoking
- Bowel Function
- Bowel Preparation
- Post-op Family support
- Recuperation / rehabilitation
- Time for healing

Intraoperative problems

- Bleeding
- Nerve damage
- Bladder perforation
- Bowel perforation

Post operative complications

- Failed healing – erosion, disruption
- Trauma
- Inappropriate activity e.g. work, sex
- Pain
- Voiding difficulty
- Haematoma,
- Pelvic infection

Long term problems

- Recurrence
- Pain
- Sexual dysfunction Dyspareunia and Hispareunia

Consent and preparation
Post operative instructions

REFERENCES

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Patient Safety

Most patients who undergo reconstructive surgery are not aware of the potential for serious damage from inappropriate early activity after surgery. Patients are given a consent form with strict limitations of postoperative activity for 3 months. Long term structural integrity is dependent on not disrupting the healing wound until complete.

Example patient advice to minimize post operative complications:

DISCHARGE INSTRUCTIONS FOR PATIENTS WHO HAVE UNDERGONE SURGERY FOR PROLAPSE OR INCONTINENCE

You have just undergone corrective surgery for pelvic problems. It is absolutely necessary that you follow the instructions set out below when you return home.

1. REST – This means very limited activity until you see your surgeon for your postoperative visit at 2 – 4 weeks after surgery.

   a. No house work.

   b. No cooking – light meals only.

   c. No exercising – no bending down or stretching up.

   d. You may walk around the house but not out of doors.

   e. No driving or riding in a car.

   f. No douching.

   g. No sexual intercourse.

   h. No straining – YOU MUST NOT GET CONSTIPATED.

   i. Empty your bladder frequently.

2. Take medication as prescribed.

3. Please call Doctor Farnsworth on 0448873772 if you have any problems.