UROGYNAECOLOGY

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UROGYNAECOLOGY

Incontinence

Prolapse

OBJECTIVES

- Revise the relevant anatomy
- Understand the mechanism of continence
- Describe the casues, investigations and management of prolapse and incontinence
- Counsel a patient regarding treatment of prolapse and incontinence

Anatomy

Autonomic nerves:

Parasympathetic S234

Contraction of detrusor muscle during voiding

Sympathetic T12-L2

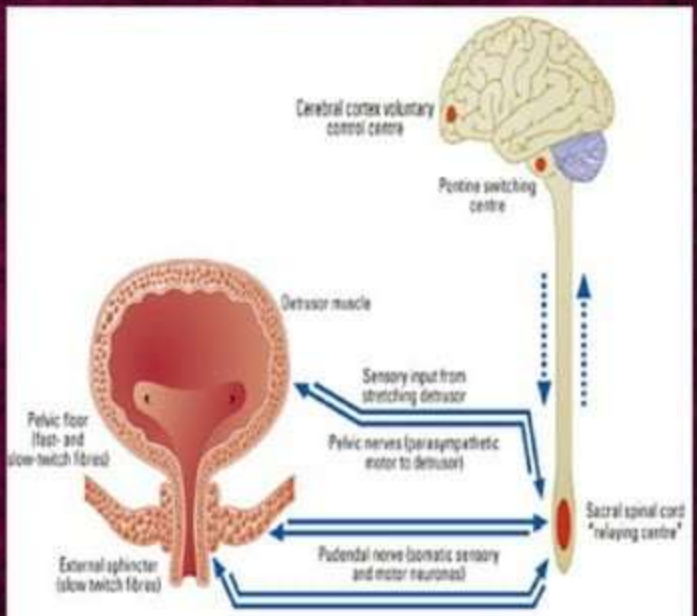
Contraction of sphincter during storage

Somatic nerves S234

Contraction of pelvic floor muscles during storage

Connections to cortex

Cortocal awareness



INCONTINENCE

- Involuntary loss of urine which is a socail or unhygienic problem
- Prevalence
  - 10-35% of adults suffer from urinary incontinence
  - >50% of institutionalised patients have urinary incontinence
  - Only 10-20% seek help

NICE GUIDELINE

NHS
National Institute for
Health and Clinical Excellence

Urinary incontinence in women

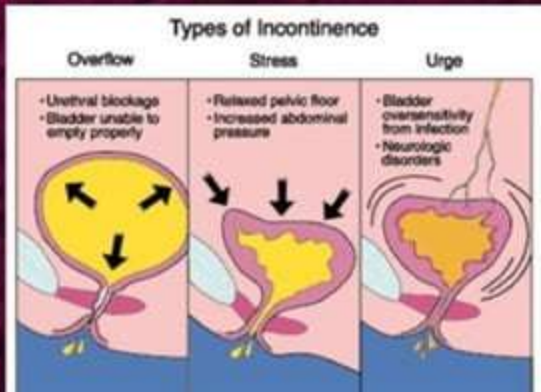
October 2006

Impact on Quality of Life

- Lifestyle and avoidance of activities
- Fear & embaressment
- Relationships
- Dependence on care givers
- Discomfit and skin irritation
- Depression

INCONTINENCE

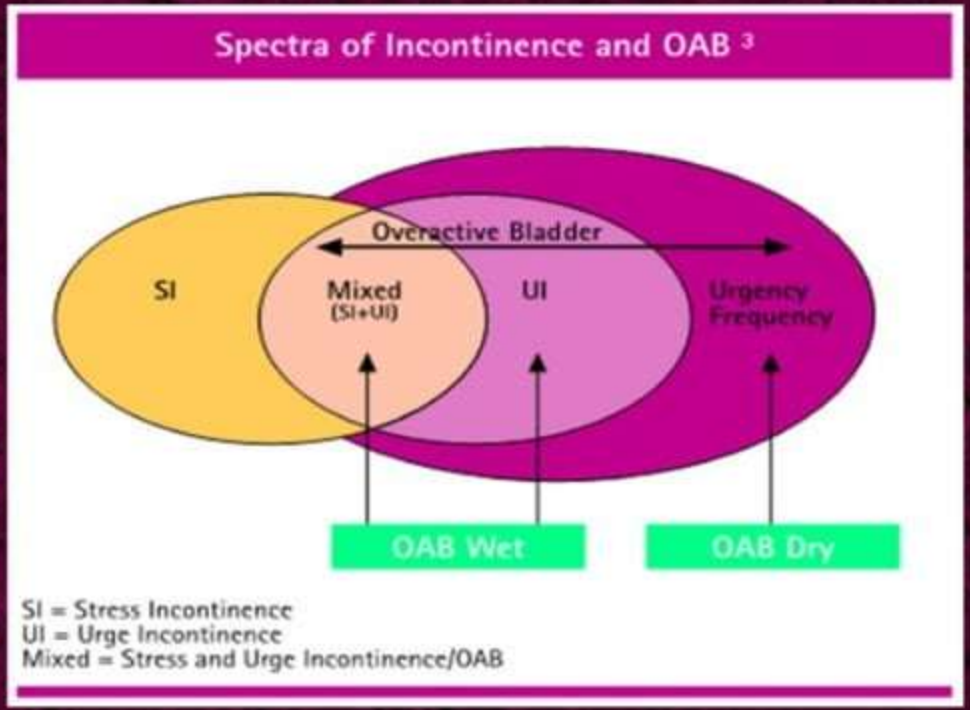
- Types of incontinence
  - Urinary Urge incontinence (overactive bladder syndrome)
  - Urinary Stress incontinence
  - Mixed incontinence
  - Overflow incontinence
  - Functional incontinence
  - Reflex incontinence



URGE URINARY INCONTINENCE
OVER ACTIVE BLADDER SYNDROME (0ABS)

- Involuntary leakage of urine accompanied by or immediately preceded by urgency
- Urgency: sudden desire to void
- Causes:
  - Overactive bladder syndrome:
    - Detrusor overactivity (loss of urine due to involuntary bladder contraction)
    - Urinary tract infection
    - Urogenital atrophy

OVERACTIVE BLADDER



TRIGGERS for URGENCY

URINARY STRESS INCONTINENCE

- involuntary loss of urine with increased abdominal pressure (cough, sneeze, exercise) WITHOUT detrusor activity
- CAUSES: pelvic floor damage / weakness or weak urethral sphincter
  - Childbirth
  - Connective tissue disease
  - Intrinsic sphincter deficiency (ISD)
  - Chronic cough
  - Constipation

MIXED INCONTINENCE

Combination of USI and OABS

Urodynamics useful to confirm predominant type

Overflow

- obstruction to the bladder or urethra, or a bladder that doesn't contract properly. As a result, their bladders do not empty completely, and they have problems with frequent urine leakage.

Functional incontinence

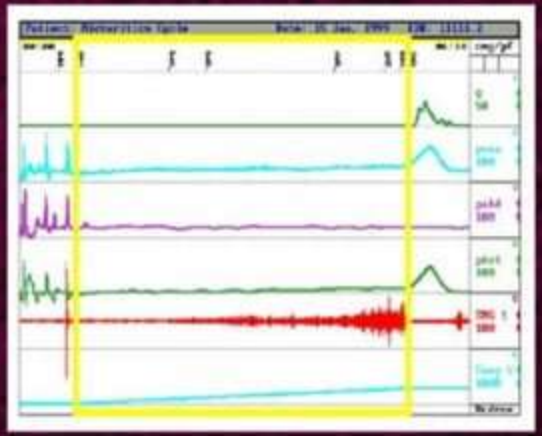
...have control over their own urination and have a fully functioning urinary tract, but cannot make it to the bathroom in time due to a physical or cognitive disability e.g. arthritis, Parkinson's disease, multiple sclerosis , or Alzheimer's disease

Reflex incontinence

- Individuals with reflex incontinence lose control of their bladder without warning. They typically suffer from neurological impairment.

INVESTIGATIONS

- Patient evaluation:
  - history
  - examination
  - voiding diary / FVC
- Basic investigations:
  - urinalysis / MSU
- Specialist investigations:
  - urodynamics
  - video-urodynamics
  - ultrasound



Frequency Volume Chart (voiding diary)

- over 3 days
- Voiding patterns
- Fluid input and output
- Incontinence episodes

Name _____ Date _____

	Day 1			Day 2			Day 3		
	In	Out	Wet	In	Out	Wet	In	Out	Wet
7 am							150ml		
8 am	150ml	300ml		150ml	150ml			250ml	
9 am									
10 am					150ml				
11 am		150ml	X	200ml		X	200ml		
12 pm	200ml							100ml	X
1 pm					200ml		200ml		
2 pm	150ml	100ml							
3 pm		100ml	X	330ml				100ml	
4 pm	200ml				100ml		200ml	150ml	
5 pm									
6 pm	330ml	200ml	X		100ml	X			
7 pm				250ml			250ml	200ml	X
8 pm					150ml				
9 pm	300ml	200ml				X			
10 pm	100ml			200ml			330ml	100ml	
11 pm		200ml			200ml				
Midnight				150ml			150ml	150ml	X
1 am									
2 am									
3 am	150ml	200ml			150ml			100ml	
4 am									
5 am								100ml	X
6 am									

Measure and record the volume of drinks in the "in" column
Measure and record the volume of urine passed in the "out" column
Put a X in the "wet" column each time you leak urine

= 150ml
= 100ml

Urinalysis / MSU

- UTIs are not a common cause of incontinence but will aggravate symptoms
- May invalidate the results of investaigations performed

SPECIALIST INVESTIGATIONS

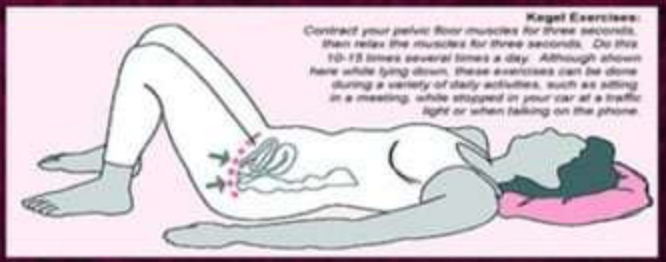
- Urodynamics (cystometry)
- Imaging techniques:
  - Video cysto-urethrography
  - Micturating cystography
  - Ultrasonography
- Ambulatory urodynamics
- Cysto-urethrscopy

DIAGNOSIS

- Exclude infection
- Bladder diary
- Resi-flow (residual urine after void, urinary flow rate)
- Invasive functional test assessing the bladder during filling, resting and voiding

TREATMENT of SUI

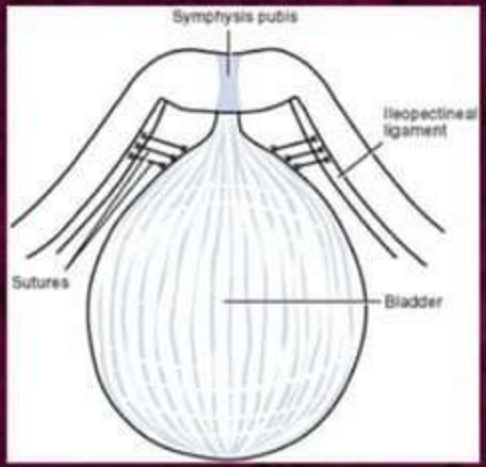
- CONSERVATIVE:
  - weight loss
  - pelvic floor exercises
  - Avoid constipation, chronic cough
  - Biofeedback
  - Electrical stimulation
- MEDICAL
  - Duloxetine (SSRI), oestrogen, alpha- agonists



TREATMENT of SUI

- MECHANICAL
  - Intra-urethral devices
- SURGICAL
  - Bulking agents (e.g. silicone Macroplatique)
  - Transvaginal obturator tapes (TOT, TVT-O)
  - Retropubic transvaginal tape (TVT)
  - Colposuspension

Colposuspension



TREATMENT UUI

- Mainly conservative;
- Exclude UTI
- Offer PFE / biofeedback
- Fluid: 1.5 litres / day
- Bladder training (6 weeks
- Drugs:
  - antimuscarinic
  - Antidepressants
  - oestrogen
- Offer support and advice for side effects
- Invasive testing NOT recommended before conservative therapy

TREATMENT UUI

- Surgical options (rare):
- Botox
- Sacral nerve stimulation
- Augmentation cystoplasty

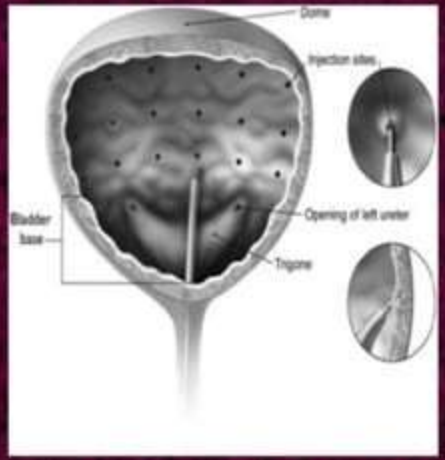


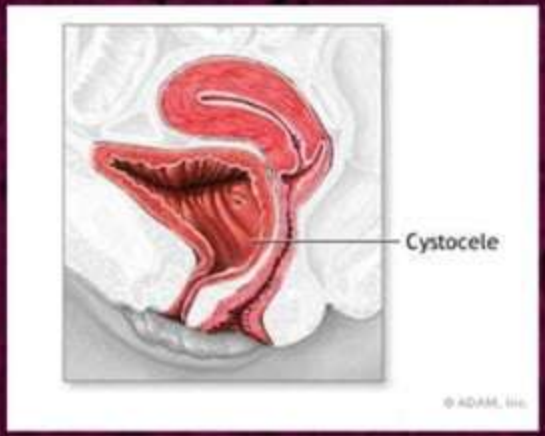
Figure 2 – The wedge-shaped gastric flap is brought with its blood supply close to the bladder, taking care to avoid twisting of the pedicle (note that all clips are facing the left side of the gastric pedicle).

PROLAPSE

- Anterior compartment
- Middle compartment
- Posterior compartment

PROLAPSE

- Anterior compartment



PROLAPSE

- Middle compartment: uterine or vault

PROLAPSE

- Posterior compartment

Predisposing Factors

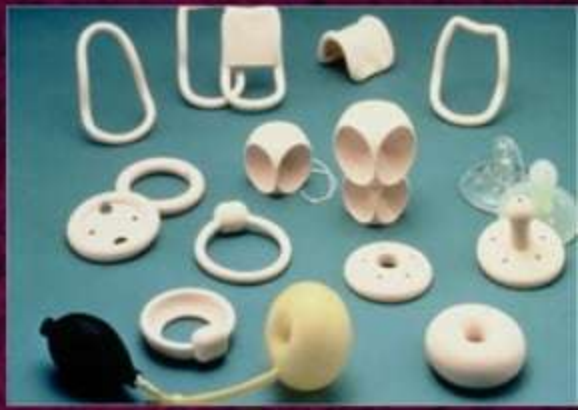
- Age
- Parity
- Menopause
- Connective tissue disorders
- Obesity
- Smoking

Prolapse Symptoms

- 'something' coming down
- Back ache
- Urinary / faecal incontinence
- Difficulty with micturition / defecation
- Bleeding / discharge
- Apareunia

PROLAPSE TREATMENT

- Do nothing!
- Conservative :
  - Loose weight
  - stop smoking,
  - Pelvic floor exercise
  - Pessaries (ring, shelf)
  - Topical oestrogen



Principles of surgery

- Remove the lump
- Restore organs to correct position
- Correct incontinence
- Preserve sexual function

PROLAPSE TREATMENT

- Surgical
  - Anterior repair / colporrhaphy
  - Posterior repair / colporraphy
  - Vaginal hysterectomy +/- vault elevation (sacrospinous fixation)
  - Additional support: surgisis, mesh

THANK YOU