

Intercollegiate Specialty Examination in Urology

Bladder Dysfunction & Gynaecological Aspects

Theme: Voiding dysfunction in Parkinson's disease

Scenario: A 59 year old man is presented to you with a 2 month history of frequency, urgency, urge incontinence, nocturia and poor urinary flow. Two years prior to his presentation he was diagnosed with Parkinson's Disease which is variably controlled with co-beneldopa and benzhexol.

Introductory question: (e.g. integration of information presented/application of basic principles to the situation described in the scenario/differential diagnosis)

How would you assess him and what role does his PD play in the generation of his LUTS?

Key Points for Discussion:

As for any man of this age - may have LUTS secondary to BPE

So, history, examination and tests

Uroflow and PVR

PSA?

Dip urine etc

Role of urodynamics?

Discuss the impact of Parkinson's Disease on the physiology of voiding

Discuss the different types of voiding problems they may experience

Question 2: (e.g. management, relevant applied pathophysiology, anatomy)

His PSA is 1.2ng/ml and he has an eGFR of 95mls/min. He goes on to have a urodynamic study which demonstrates an overactive bladder with high pressure/low flow voiding.

Why might his voiding appear obstructive and what would you advise him regarding treatment?

Key Points for Discussion:

Discuss obstructive causes

Discuss sphincter dyssynergia

Prefer initial medical management with anticholinergics
Discuss choice of anticholinergic medication and differing pharmacodynamics
Discuss risks of precipitating an acute retention with these and why
Discuss the possibility of starting him on synchronous alpha blockers
Discuss the possibility for him to need to catheterise, self/carer
Discuss risks of surgical intervention especially incontinence
Higher risk of developing an acute retention - probably, as many drugs given for Parkinson's Disease, such as benzhexol have anticholinergic properties so may precipitate a cholinergic crisis

Question 3: (complications of management)

He is given Oxybutynin 5mg tds and an alpha-blocker for three months with no improvement in his lower tract symptoms. He is now having episodes of urinary incontinence and feels that his quality of life is significantly adversely influenced. He is reassessed and his post void residuals appear to be increasing and he has suffered from at least one urinary tract infection.

What are his options?

Key Points for Discussion:

Consider outlet surgery
Intermittent catheterisation
Indwelling catheter

Risks of surgical intervention

Discuss evidence for outcome from TURP in his situation
Discuss, in particular, the risks of incontinence

Bad prognostic indicators for surgery

Poor control of the underlying neurological condition
Akinesia getting worse
Dexterity getting worse
Deteriorating cognitive function
Multi-system atrophy

Question 4:

He elects to undergo a further urodynamic study which shows continued high pressure voiding and consents to a TURP despite the risks. Surgery is performed under GA and there is significant worsening of his Parkinson's disease following the intervention. He is totally wet following his surgery.

How do you manage him?

Key Points for Discussion:

Video or conventional CMG - discuss
M/CSU
Measure residual volumes

Empirical management of his wetness after discussion with him/his carers

Depends on general state and what he/carers want

Discuss empirical anticholinergics and waiting

Discuss yet further urodynamic assessment with video study

Discuss other, novel, ways of managing his wetness

Emphasise that he is not a good candidate for an AUS even were he to have pure sphincteric wetness as:

Necessitates further surgery

Won't make him totally dry

Dependent upon cortical function which will necessitate greater carer input

Intercollegiate Specialty Examination in Urology

Urological Imaging & Principles of Technology

Theme: Diathermy, DVT & positioning

Scenario: You are about to commence a standard TURP. You start the procedure but find that the loop will not cut.



Introductory question: (e.g. integration of information presented/application of basic principles to the situation described in the scenario/differential diagnosis)

What do you do? If the earth plate has not been applied to the patient, where would you place it? What factors do you need to consider?

Key Points for Discussion:

Check irrigation fluid

Check lead attached to resectoscope

Check lead attached to machine

Earth plate on and connected correctly

Foot pedal plugged in

Diathermy machine settings correct (probe for what candidate would have them set at (Cut, Coag + Spray, on Monopolar))

If no cause found try replacing lead and/or loop.

Plate near to site of surgery

Avoid current stream crossing heart

Shave if hairy

Large plate with contact agent (usually part of the adhesive)

Dual plate

Avoid wetting plate

Avoid metal prostheses.

For TURP upper thigh or lower abdominal wall ideal.

Discuss the other options like

Bipolar Resection.(discuss the differences)

Laser Vapourisation and Holmium enucleation

Question 2: (e.g. management, relevant applied pathophysiology, anatomy)

During WHO the anaesthetist informs you of the fact the patient has a pacemaker.

What measures would you take to avoid interference with pace maker?

Key Points for Discussion:

Type of pace makers – refer the details with cardiologist

Bipolar resection

Plate as far away from the heart as possible

Use of magnet!!

Question 3: (complications of management)

You are taking an ST3 through an inguinal orchidectomy. While diathermising a small vessel near the wound edge, he delivers 5 mm burn to the skin edge; sustains a glove burn. How do you manage this situation? How could it have been avoided?

Key Points for Discussion:

What is the disadvantage of leaving the skin burn?

Excise the area taking a ellipse of the affected wound edge, closure will be unaffected –

Post operatively, document what happened and tell the patient the truth.

Diathermy levels as low as appropriate, use diathermy forceps with minimum of bare metal, don't use intermediate conductor i.e. normal forceps, same surgeon controls pedal and diathermy forceps, ensure trainees understand the dangers of kit they are using.

Glove burn – Don't activate diathermy without contact with the patient + insulation defects?

Question 4:



Two weeks post op Radical Prostatectomy your patient develops shortness of breath and chest pain. What do you want to know from your trainee? What investigations will you request? This is the CT Pulmonary Angiogram. What can be seen in this image? How and how often does this occur, and what measures would do you take to try and avoid this situation?

Key Points for Discussion:

It demonstrates a large saddle pulmonary embolus

VTE (venous thromboembolic disease): Migration of clot that have formed in large veins, usually in the lower limbs

Rate of occurrence plus fatal rate

DVT rate; (0.6% -1.4%)

For all patients; use mechanical devices (either TED stockings + or Flowtron calf compression boots while on table or both).

Use of low molecular weight heparin if risk factors

Consider caval filter if pre-existing clot and anticoagulation contraindicated

Preoperative Clexane, continue postoperatively up to 28 days

What is the evidence for these actions?

Local guidelines, national guidelines, NICE guidelines

Discuss patient related risk factors?

High BMI

Active cancer or cancer treatment

Active heart or respiratory failure

Acute medical illness

Age over 60 years

Antiphospholipid syndrome

Behcet's disease

Central venous catheter in situ

Continuous travel of more than 3 hours approximately 4 weeks before or after surgery

Immobility (for example, paralysis or limb in plaster)

Inflammatory bowel disease (for example, Crohn's disease or ulcerative colitis)

Inherited thrombophilias, for example:

High levels of coagulation factors (for example, Factor VIII)

Hyperhomocysteinaemia

Low activated protein C resistance (for example, Factor V Leiden)

Protein C, S and antithrombin deficiencies

Prothrombin 2021A gene mutation.

Newer anticoagulants / clopidogrel and when to stop pre op

Intercollegiate Specialty Examination in Urology

Urological Oncology 1

Theme: CisB with BCG failure

Scenario:

A newly appointed GP rings you about a 64 year old male smoker presents with frequency and urgency of micturition and non-visible haematuria.

Introductory question: (e.g. integration of information presented/application of basic principles to the situation described in the scenario/differential diagnosis)

How would you advise him?

Key Points for Discussion:

2WW referral to haematuria clinic , investigations performed in this setting

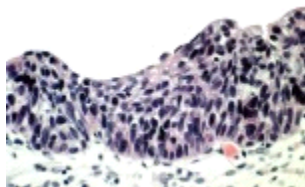
Role /benefit rapid access clinics-significance of non-visible haematuria

Urinary biomarkers/cytology

Cystoscopy (Role of Blue light / NBI >sensitivity, <specificity)

Upper tract imaging

Question 2: (e.g. management, relevant applied pathophysiology, anatomy)



This is a representative bladder biopsy which shows Carcinoma in situ. How would you manage this patient?

