M A 26 years is suffering from back & leg pains. His pain is mainly on sitting but also on standing& walking. Pain is on the right side goes to the sole of the foot & small toes. On examination he has +ve SR & tender lower facets . MRI shows large disc bulge at L4-5 level.

| MRI shows large disc bulge at L4-5 level. | |
|--|-------|
| Fig 1 &2 shows the first intervention: | |
| What is the view seen in fig.1 ? | |
| Where is the needle introduced ?& which nerve does it delineate? | |
| What is the other stained dye structure delineated higher up in the same f | igure |
| | /3 |
| Fig 3& 4 shows the second intervention. | |
| Which structure is aimed at? . | |
| | /1 |
| | |
| | |
| | |
| | |
| | |
| | |

Total Points

?

/ 4

| AJZ is suffering from left sided back & leg pains; pain is mainly on walking be prolonged sitting. Plain X-ray shows first degree spondylolithesis between L4 | |
|---|------------|
| Fig 1 shows the first intervention. Which nerve is shown? | |
| /0 |).5 |
| Fig 2 Shows an electric therapeutic intervention using pulsed radiofrequency What is the exact target stimulated in the nerve root? | ' . |
| What is the maximum temperature accepted? | |
| What is the usual duration of electric stimulation? | |
| Why a conventional RF is not used? | |
| /1. Fig 3 Which joint is injected ? | 5 |
| Which limb (medial or lateral) is targeted on an A/P view? & Why ? | |
| /2 | |
| | |

.../ 4

Total points

| 1. | What is the expected structure in yellow labeled 1? | ½ point |
|----|---|---------|
| | and what does its function cause on GIT? | ½ point |
| 2. | What is the structure in red labeled 2? | ½ point |
| | and what is the technique given to its transfixion | ½ point |
| 3. | Explain the superiority of transfixion compared to the old classic David Moore technique? | ½point |
| 4. | What is the structure labeled 3? And at which level is it pierced by 2? pierced at level | 1 point |
| 5. | What is the structure in yellow 4? | ½ point |
| | Enumerate the roots involved. | ½ point |
| 6. | What is the structure in yellow 5? | ½ point |
| | | |
| | | |

.../ 5

Total points

Middle age male suffering from cancer colon undergone left hemicolectomy post operative radiotherapy .

9 years later he developed intestinal obstruction which was dealt with by temporal transverse colostomy.

A rectal stent was performed in order to resume normal passages but caused pain in the perineal region, scrotum, upper medial part of the thigh. This was associated with frequency, dysuria, tenesmus, anal heaviness & insomnia.

Somatic nerve block was performed under nerve stimulator to cover the dermatomal area involved using local & corticosteroids (fig1/1&1/2)posterior to ischial spine with immediate relief.

What is the expected nerve involved? & why?

/2

How can you improve the dysuria, frequency, tenesmus Pharmacologically & interventionally ? and why ?

(see the next following figures ..)

/2

Total points .../ 4

A cooley's fracture was badly fixed in a middle aged man. Patient developed dull aching continuous pain, unable to withstand cold winds, intolerable pain on touch & incapable of holding goods or even shaking hands.

Diagnostic intervention was performed in his neck.

Fig 1 What is the view seen in the presenting picture?.

Describe the site aimed at in this view?

/1.5

Fig 2 A dye is injected after reaching the proper bony landmark What is the view seen in the presenting picture?

What does the small volume dye show?

Which block is performed? &what is your primary diagnosis?

/1

What will be the proper volume & local analgesic concentration required to reach the hand?

/1

Total points .../ 3.5

| Right Selective nerve root block was aimed at . | |
|--|------|
| Which nerve root is aimed at in the shown picture? & how can you confirm your level? | |
| Real time fluoroscopic injection shows the attached picture . | /1 |
| What anomaly does it show? | /1 |
| How should you proceed as a safe interventionist? | |
| What is the recommended physical character of the injectate ? &why? | /0.5 |
| | |
| | |
| | |
| | /1.5 |

Total points .../ 4

A 46 years male had a left side pelvic & head of femur fracture.

Operation was delayed 10 days to ensure clean wound & a total hip replacement with fixation of the acetabulum was performed (see attached X-ray).

Two months later patient was referred from the orthopaedic surgeon to the pain clinic due to undiagnosed severe pain on walking .

On examination pain developed on internal rotation of the left leg - while knee is extended - in his left lower back .

What is the possible cause of the pain?

Explain the technique for such a block?

What is the exercise needed for proper rehabilitation .

Total points .../ 3

Comment on the following X-ray:

| • | 2nd row MRI is it T1 or T2? | |
|---|-----------------------------|--|
| | & why ? | |

/1.5

• What is the site of the lesion?

/0.5

• What could be the presenting symptom?

/1.5

• What could be the therapeutic surgical intervention ?

/0.5

Intervention was done for mechanical back pain

What is the view on the X-ray.?

/0.5

Explain the view seen on dye injection ?

Where is the site & level of the shown needle?

/2

/0.5

| Total points/ 4 |
|---|
| |
| What are the possible complications of such a block? |
| What drug, volume& concentration will you be using for such intervention? |
| What are the nerve roots involved? |
| Name a potential therapeutic sympathetic block to improve such a condition ? |
| A young girl aged 25 is suffering from pelvic pain caused by extensive endometriosis. Medical analgesics failed to improve her condition. |

| You are responsible for acute pain service for a chronic bronundergoing resection of cancer middle oesophogus. | nchitis patient |
|--|-----------------|
| Describe in detail your ideal block for the first 3 days post op relief? | erative pain |
| Technique | |
| Drugs (volume& concentration) | |
| Safety & monitoring | |
| | |
| | |
| Total points/ 4 | |

A football player was severely hit at the lateral side of the right knee during a game .

A delicate orthopaedic surgery had to be done to release the common perineal nerve from compression with 15 cm extensive scar .

Three years later he came to the pain clinic complaining of continuous lateral leg pain (mainly at the site of surgery) in association with weak dorsiflexion & numbness.

Pain is improving in hot weather & by hot foments .

Total points

Patient tried many medications including 900 mg gabapentin/perday without feeling better .

| What is your primary diagnosis ? | /1 |
|--|----|
| What can you do to improve his condition ? | |
| Interventionally: | |
| | |
| Pharmacologically: | /2 |
| | |
| | |
| | /1 |

.../ 4

| What is the type of vertebra provided? |
|---|
| Where does the sympathetic chain lie on it ? |
| Could it be cervical 6 ? |
| What is the number given to the nerve root above C6 vertebral body? |
| |
| What is the name given to the presenting needle? |
| What is the lenghth of active tip ? |
| Where can you use it ? |
| |

Total points .../ 3.5