

Station 1

A 24 slim farmer is suffering from pain on walking. The pain shoots bilaterally behind both knees. He is unable to work & feels very depressed despite variable pharmacological medications.

On examination there is no tenderness on any site in the prone position.

Associated is plain xray (A/P & Lat) & axial CT of Lumbosacral region.

Report reads spina bifida.

- 1- Which sacral nerves shoot to the back of the knees?
- 2- What are the interventions in figure 1 & 2 & what are the potential drugs injected ?
- 3 -What is the target & level of intervention shown in Figure 3? enumerate in details the nerves clearly injected ?
- 4- Where should the needle radiographically stop in figure 3 ? How would you describe the distribution of the dye ?

Station 2

In the cervical picture presented:

Which nerve is aimed at by the level of spinal needle introduced?

In order to be in the cervical epidural space, where should the tip of your needle lie?

To confirm how should your dye look like ?

What does the picture denote after 1ml dye injection?

Is this the classic site for epidural injection & why ?

What should you do in this intervention ?

Station 3

A middle age man suffering from Post Laminectomy Syndrome - including lumbar fixation - was scheduled for lumbar epidural.

Interlaminar epidural injection showed railway dye picture ascending to thoracic 4 / 5 despite only 2ml contrast injected.

3 ml 1% lidocaine with 40mg methylprednisolone was injected.

Patient experienced difficulty in breathing & a sense of lower limb heaviness which took 1.5 hrs to disappear. Patient was requested to sit with O2 mask delivery to improve his breathlessness.

Mention what is alarming on 2ml dye injection ?

What Is the layer involved in such outcome ?

Why the picture is described as railway?

Why such plane is commonly involved for post laminectomy Syndrome ?

Station 4

A 60 years female is suffering from left palm pain end of the day & right paracervical spastic tenderness at the root of her neck reaching her right shoulder.

On examination:

There is pain shooting to the forehead on cervical rotation with neck flexed; & there is +ve spurling test for her left arm.

MRI shows lower cervical disc compression.

Which nerves are involved on neck rotation with the head flexed ?

What clinical reflection is concluded from +ve spurling test ?

In figure one where does the needle lie ?

& What is the closest nerve root?

What is the intervention performed in figure2?

Mention the volume & concentration of the drugs used ?

In figure 3 What is the targeted nerve ?

Which nerve roots are involved?

Describe how to be on the proper nerve for therapeutic PRF ?

Station 5

S A Aged 55 is working as a carrier in a factory. He is suffering from severe spasm in his back on moving from bed to the standing position every morning. He is unable to stand correctly or to sit even for a short time. He stopped working. S A has had laminectomy 15 years ago. He complains mainly from the front of the thigh up to the medial side of his left leg particularly on standing. On examination tenderness is mainly in his back in middle line between L4 & L5 spine.

Laboratory investigation are :

ESR first hour	105 mm	N up to 5
CRP	22.00 mg/L	N less than 6.0

MRI reads:

Lumbar lordosis with disturbed vertebral alignment.

Degenerated L4-5 intervening disc with reduced heights & T2W bright signals.

Diffuse annular posterior disc bulges mainly at L4-5 .

1-What is the gross anomaly in the lateral view of plain Xray ?

2-What is the anomaly In the Sagittal T2 MRI at the level of L4/L5 ?

What does it denote ?

50 mg parenteral -IV- Tigecycline was given twice daily for 10 days improved markedly his standing, movement & Pain as well as his new lab results.

Mention another supportive measure (non invasive) favorable to improve his back & leg pains?

Station 6

A lady under rivaroscaban (Xarelto 10mg) is scheduled for emergency total hip replacement.

What is the mode of action of rivaroscaban ?

How long should you wait before centralneuraxial intervention is allowed?

Fascial block was decided under GA.

What are the names given for the below numbers:

1

2

3

4

5

6

Describe the technique

What is the sign of a successful block in early surgery?

Station 7

A 45 years old female who has undergone radical mastectomy one year ago suffers nowadays from upper arm pain associated with lymphedema of the limb.

Interventional procedure using ultrasound is decided to relief her pain.

What is the level of the procedure in figure 1? & Which side?

Nominate the below key anatomical structures in the short axis sonogram in fig 2:

A-

B-

C-

What are the volume & concentrations of the relevant drugs used ?

What are the potential outcomes of successful block you need to warn the patient about prior to the intervention?

What are the serious complications ?

Station 8

A 73 years overweight diabetic is suffering from back & right leg pains. Her pains are mainly on bed movement & on walking. On examination there is tenderness on L5 spine, right paravertebral tenderness & severe back pain on medial rotation of right leg with knee & hip flexions .

Fig 1 & 2 show the first group interventions :

What is the target in both figures ? How can you ensure radiological safety ?

What is the target in fig 3 intervention ?

What is the target in fig 4 intervention ? Mention the safety in such procedure?

What is the target of both spinal needles in figure 5 ?

What are the volume & concentrations of all potential drugs used ?

Station 9

A 65 years lady is suffering from postlaminectomy syndrome. She has pain in the right leg particularly on walking & standing .

Fig 1 shows 2 interventions:

What are the nerves targeted for adhesolysis by the lower spinal needle ?

What is the nerve targeted by the upper spinal needle ?

In Fig 2 What does the dye delineates?

Dye in figure 2 is abruptly interrupted .

How can you improve such problem ?

What is the intervention in fig 3?

What is the intervention in figure 4 ?

Station 10

A middle age man is suffering from pelvic pain one year after abdominoperineal resection for cancer rectum. He has had chemotherapy & radiotherapy following surgery .Intervention is decided to relief his pevic pain .

Figure 1 & 2 show the main neurolytic block.

What is the name of the block ?

Mention type of solution, volume & concentration ?

Elaborate on common complications of this neurolytic block ?

Figure 3 & 4 show an additional block ?

What is the name of the block ?

Mention type of solution , volume & concentration ?

