

Station 1

- A 28 years old girl suffers from inability to walk due to intraspinal intramedullary tumour at T12-L1 level.
- A neurosurgeon under microscope removed successfully the locally malignant tumour (ependymoma). This was followed by radiotherapy.
- 6 months later, symptoms recurred & she was unable to stand & walk as before surgery
- A pain clinician expected fibrotic entrapment. Translaminar interventions were performed.

Figure 1 shows loculation distribution of the dye.

Figure 2, 3 reveals the response after therapeutic intervention on the right side.

Which level & space the needle was introduced?

Figure 4 shows the homogenous distribution of the dye after therapeutic intervention on the left side. What is the possible intervention & the rational for it?

Figure 5 shows a spinal needle for nerve root block.

What is the level & site for this nerve root injected?

Station 2

A 78 years lady is unable to sit & lie flat in order to avoid excruciating pain. Pain is mainly shooting to the left upper back .MRI report reads recent inflamed oedema at the upper level of T12.

On examination pain was elicited on T12 spine & shooting to the left iliac crest.

Fig. 1 & 2 & 3 show the vertebral intervention.

What is the usual gauge needle used for vertebral augmentation ?

In figure 4 & 5 a vertical line is delineated.

How can you explain its occurrence?

What is the main radiographic precaution on cementing vertebra ?

Station 3

A 66 old patient is suffering from spinal canal stenosis. His main concern is pain on lying flat. Pain increases if sitting with inclination to the right side.

On examination right paravertebral pelvic tenderness which increases on standing & twisting his back to the left side.

Intervention is done to relieve above somatic pain.

What is the intervention in fig 1 & 2

What is the intervention done in fig 3& 4 ?

Based on all the above what is the source of pain generator ?

What are the parameters used for such intervention ?

Station 4

A 76 year old farmer is suffering from radicular pain shooting to the right forearm & hand.

Medical treatment was unworthy & intervention was decided.

What is the name of the test potentially positive in radicular pain?
& How can you elicit it ?

Figure 1 & 2 show RF needle delineating a nerve root. On sensory stimulation patient mentioned that numbness is noticed at the top of his shoulder & upper arm.

Which nerve root is stimulated ?

Figure 3 & 4 show the adjusted RF needle caused -on sensory stimulation –numbness reaching the big toe. What is the nerve affected ?

What are the frequency, pulse width, voltage & duration for performing PRF ?

Figure 5& 6 show the next required radicular cervical nerve. Which nerve is aimed at?

Which drug/drugs can be safely injected ?

Station 5

Emergency total hip replacement to an opioid tolerant patient on clopidogrel.

Describe how can you provide acute pain service;

Using two of the following methods with all details:

- **Interfascial regional field block**
- **Nerve stimulator (hip pain)**
- **Parenteral PCA.**

Station 6

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

Interventional procedure using ultrasound is decided to relief her pain .

What is the name of the procedure in the below figure? & Which side?

Nominate the structures:

A-

B-

C-

D-

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 complications of the procedure?

Station 7

Sacral neuroplasty is decided to relieve pain to a 50 years patient suffering from Post Laminectomy Syndrome. His main radicular symptom coincides with left L4 dermatome.

What is the name of the test performed in order to confirm his radiculopathy ?

What is the sensory distribution of L4 dermatome ?

What is the name of the needle & catheter used in caudal neuroplasty shown in figure 1?

Is it a ventral or dorsal epidural ? Explain your answer .

What are the drugs used in caudal neuroplasty stating the volume & order of injection ?

After further introduction of the catheter, 3 ml dye caused the pictures in figure 2 & 3 ;

What is your expected diagnosis & How can you manage?