

Station 1

A 35 years lady suffers from abdominal colic & dyspepsia. She has also pain in both groins travelling towards the middle line below the umbilicus at the symphysis pubis (from lateral to medial).

Pain was not correlated to her menstrual period.

Previous history of repeated CS & the last one dated 3 years ago.

On examination, tenderness was elicited on the lateral site of the scar.

Figure 1 , 2 & 3 show a block using a nerve stimulator & C arm for both sides. What are the possible interventions? & Why?

Patient received pregabalin 50mg twice daily for few weeks but she mentioned that her pain only improved on the right side but remained on the left with the same original colic ...

What could be the other possible pain source on the left side?

How can you find out?

Station 2

An overweight 60 years lady is suffering from pain on walking & standing. She leans on one side on walking & pain is elicited on straightening her back.

What are the nerves blocked in figure 1?

Describe the picture if dye is injected?

What are the two muscles injected in figure 2?

Can you describe how can you stretch both muscles?

What are the structures delineated in figure 3? & their relation to the sciatic nerve?

What is the structure delineated in figure 4?

What is its nerve supply?

Station 3

A 62 years overweight (97kg) lady is complaining of lower back pain on standing & sitting.

On examination:

Bilateral +ve SLR .

Bilateral prevertebral tenderness on contralateral extension.

Muscular tenderness below PSIS & towards the greater trochanter.

MRI reads broad base disc protrusion between L4 & L5.

What does the dye delineate in figure 1?

What is the block performed in figure 2 & 3?

What is the structure injected in figure 4?

Why 2 different sites are used?

What is the structure injected in figure 5?

Station 4

A.A. aged 55 years is suffering from Pancoast tumour.

He has burning numbness in the left forearm & left hand

What is the preliminary diagnosis of such pain?

How would you confirm clinically such a diagnosis?

He also suffers from electric shooting pain traversing the whole severely wasted arm.

Is an anticonvulsant or anti depressant drug ideal to manage such a symptom?

What will be the ideal available drug for both symptoms? describe drug regime.

A block while supine was performed under C arm

What is the level of the spine shown by the long needle in Figure 1 & why?

The C arm was adjusted left oblique and a standard spinal needle was introduced at a HIGHER LEVEL as shown in figure 2.

What is the usual gauge of spinal needle used? & why the terminal end is bent ?

Where should you settle the tip of spinal needle in relation to the body of cervical vertebra & the transverse process?

What does the dye show in figure 3?

Would you recommend such a level without C arm & why ?

Station 5

A Progressive quadriparetic patient is suffering from pain in the root of the neck anteriorly & mainly posteriorly but more importantly recent sphincteric urgency (both urine & stools). He has fused cervical vertebra C4, C5, & C6. A neurosurgeon operated to improve his symptoms.

What is the level of bony insertion in the provided X-ray?

Is it an anterior or posterior approach? & Why?

What are the possible results?

Station 6

A 53 years physician is suffering from recent left scapular & shoulder pain. She refused supra scapular block & was not responding to NSAID's. A cervical MRI describes multisegmental spondylodegenerative disc disease. A CT scan of the chest demonstrated left upper lobe mass lesion likely bronchogenic carcinoma (see associated X-rays)

Is this a Pancoast tumour? & why?

Surgery was refused due to brain & liver metastasis.

Pain intensity increased & surrounded her upper left chest wall & curved anteriorly to reach below the nipple .

Mention an oral available opioid having an oral neuropathic capacity?

Mention a discrete interventional procedure likely to improve her excruciating somatic pain?

Station 7

Choose the best (only one) answer:

Pudendal nerve:

- A- Lies anterior to sacrospinous ligament**
- B- Runs lateral to sciatic nerve**
- C- Supplies Levator Ani muscle**
- D- Supplies the voluntary urinary sphincter**

Which of the following statements is (are) true regarding subarachnoid neurolysis:

- A- The patient should be tilted 45 degree posteriorly when it is performed with alcohol.**
- B- It usually requires radiological guidance.**
- C- The patient does not need to lie on the painful side when it is performed with phenol.**
- D- It is safest when performed in the thoracic region.**

Station 8

A 40 years old salesman has had a motor car accident. He was unable to move his legs & had to be transferred to his residency; 6 months later he sought medical advice for his inability to sit & his limited short distance walking. His pain was relieved by lying flat in bed.

On examination, tenderness on the back of spine at L1 level. No other neurological symptoms detected. Intervention was decided to rectify (augment) relevant vertebra (see enclosed interventions).

What is the gauge of the needle usually used in lumbar vertebra?

Figure 1 & 2 showed the distribution of the dye prior to cementing?

Repositioning & changing the direction of the beveled spinal needle allowed a safer & better outcome (figure 3 & 4)

Explain

Station 9

E. A company director aged 76 is suffering from pain & numbness in the left arm & hand. He is no more able to button his shirt & gets shooting pain towards his left thumb.

On examination he has +ve spurling sign.

Explain how to elicit spurling test?

What does it denote?

Based on the sagittal MRI (image 4 in contrast to image 8) Which side is more affected?

Based on axial & sagittal MRI, what are the main levels of nerves affected?

Cervical epidural was decided to cover the nerves on the left side .

How can you adjust your C ARM to visualize best your needle depth?

Is it a lateral view or an oblique view?

Station 10

LSL is a 28 years male used to exercise for heavy lifting.

4 years ago he was unable to lift a heavy bar & the load fell on the back of his neck.

Nowadays he suffers from:

- Numbness & weakness in both hands in the small fingers (left more than right)
- Inability to lift his 8 kg child above his head due to increased numbness.
- Posterior neck pain due to paravertebral tenderness at lower level cervical vertebra.

MRI reads : Cervical Spondylotic Changes with multilevel discal lesions .

What can you notice on the lateral plain X-ray?

What does it denote?

What can you notice on the postero-anterior view?

How can you correlate it to its radiological symptoms?

Describe in detail your pharmacological drug?

Station 11

A female patient is suffering from metastatic cancer breast. She is on:

Oxycontin 40 mg B.D.

Lactulose daily

Oxycodone 5 mg for break-through pain

Venlafaxine (effexor) 75 mg daily

Naproxen 250 mg BD

Omeprazol 20 mg daily

She started to feel nausea and vomiting.

Metoclopramide 10 mg 4 time /day failed to control her sickness.

What is the mode of action of metoclopramide?

Husband noticed that she is getting progressively drowsy - despite stopping the antiemetic – and more nauseated.

Physician requested blood chemistry and abdomen CT.

What are the possible causes of the recently developing nausea and vomiting? Mention at least 2 main reasons.

Patient passed away 3 days later.

Station 12

You are in charge of Acute Pain management for Whipple operation for cancer head of pancreas using the ERAS standard protocols/advisory rules.

What will be the essential steps for rapid recovery?