Station 1

A 45 years lady is suffering from recurrent cancer rectum. She has had surgical resection followed by Chemo & radiotherapy 18 month ago. Nowadays she has pelvic & upper right abdominal pain.

What is the primary intervention (figures 1.1&1.2& 1.3)?

What is the volume, concentration of the neurolytic solution used?

Mention the commonest interventional radicular complication using such technique?

What is the secondary intervention (figure 2)?

How can you avoid spinal tap?

What is the third intervention (figure 3.1&3.2)?

Which needle (A or B) is more technically appropriate?

Explain the proper dye distribution in both A/P & LAT radiological view.

STATION 2

A 33 years lady is suffering from left sided back pain. Pain is also projected to the back of her left thigh.

Xray reads Spina bifida S2.

Figure 1 & 2 show 2 sacral interventions.

What is the likely intervention performed by needle 1?

What is the dose (volume& concentration) required for post-operative pain relief for a 20kg child undergoing orchidopexy?

What is the likely intervention performed by needle 2?

What is the safety required in performing such intervention & why?

Station 3

A 39 years male is suffering from right shooting & burning arm & hand pain for 10 years. His pain increases by the end of the day & on touch.

What is the test used to confirm cervical radicular pain & how can you elicit it?

Hyperpathia & hyperalgesia is provoked on examination.

What does these words mean &what does it denote?

Which type of sagittal xray is associated & what level cervical disc is potentially extruded/compressed?

Which nerves can be the pain generators?

How can you radiographically confirm your diagnosis?

Interventional procedure with the patient in the prone position is done using

C arm; what is the name of this safe classic procedure?

What is the adjusted position of the patient?

Station 4

A 48 years female is suffering from advanced metastatic lung cancer. She has had both chemotherapy & thoracic bony vertebral radiotherapy. She is seeking better pain control despite being under 50mcg fentanyl patch, 10mg Escitalopram (selective serotonin reuptake inhibitor) 10mg rivaroxaban (xarelto). Enclosed her updated PET SCAN.

Mention sites of metastasis shown on PET SCAN?

What is the mode of action of rivaroxaban?

How long you need to stop it before any neuraxial intervention?

What is missing in pharmacological pain therapy?

how can you improve her pain condition?

Station 5

CHOOSE/ TICK ONE CORRECT ANSWER

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 essential to introduce spinal needle at L5 S1 interspace for neurolytic perineal pain using phenol.

In relation to the first rib :

A-The subclavian artery is anterior to anterior scalene ……

B-The subclavian vein is posterior to anterior scalene ……

C-The subclavian artery is posterior to anterior scalene …….

D-Brachial plexus is medial to subclavian artery ……

Station 6

Describe in details the main measures for acute pain service in an opioid tolerant patient undergoing resection for oesophageal cancer based on ERAS principals/ recommendations (Fasting, Fluids, Opiates, Pain relief, Ambulation)

Station 7

A 52 years male - lifts heavy objects in supermarket - has undergone laminectomy 10 years ago. Nowaydays is suffering from back & leg pains.

His pain is associated with numbness shooting to both the medial & lateral side of his left leg on walking. He has also annoying back pain on prolonged sitting on left side.

Pain is elicited on SLR & on reverse SLR on the left side;

What does positive reverse SLR denote?

What are the sites of the 3 needles shown in Figure 1?

Figures 2, 3, 4 show injection of a major pelvic joint. What is the name of the joint injected?

Enumerate the detailed scientific nerve supply of such joint?

Station8

CHOOSE ONE CORRECT ANSWER ABOUT
Transversus Abdominus Plane (TAP) Block:

Clinical Anatomy & Pharmacology:
A-Is best performed using high concentration low volume technique.
B-Is best performed using low concentration high volume technique.
C-Can be used reliably as the sole mode of analgesia including visceral pain.
D-It blocks the posterior primary rami of intercostal nerves.

TAP Block:
A-The transversus abdominus plane is between the deep fascia of internal oblique & the superficial fascia of transversus abdominus muscles.
B-There is no need to visualize the spread of local anaesthetic with this technique.
C-When advancing the needle during TAP blocks, the needle tip is best seen with an out of plane needle view.
D-The transversus abdominal plane is best visualized in the midline of the abdomen

Station9

In the associated TAP block Ultrasound figure, what is the name given to the structure labelled:

A -
B -
C -
D -

Where should be the ideal site for deposition of local anaesthetic
X or Y or Z?

For post-operative pain relief in caesarian section, mention the volume & concentration of Bupivacaine deposited on each side of the abdomen?

Station 10

TICK ONE CORRECT ANSWER IN EACH GROUP:

1- All of the following are characteristics to COMMON migraine except:
   a- It is a unilateral pain.
   b- presence of aura.
   c- pain is throbbing.
   d- pain is moderate to severe intensity

2- Pathophysiology of migraine include all the following except:
   a- Cortical spreading depression.
   b- Low serotonin level.
   c- Muscle tension around head and neck.
   d- Trigimino vascular theory.

3- All of the following are contraindicated and precautions in using Ergots in treatment of acute migraine attacks except:
   a- presence of coronary artery disease.
   b- Uncontrolled hypertension.
   c- Use of beta blockers as prophylactic treatment of migraine.
   d- Pregnancy.

4- Cluster headache abortive treatment include one of the following:
   a- Inhalation of 100% oxygen up to 15 L/min.
   b- Use of pregablin capsules 300 mg.
   c- Use of a selective Beta blocker drug
   d- Use of two types of Triptans during the attack.

Station11

1-What is the name of needle in structure A ?

& which structure is associated ?

Mention a procedure using above structures.

2-What is the name given for needle B ?

&What apparatus is used with it ?

Mention a practical example using above structures?

Station 12

A 70 years old male limps on walking due to shortening of his leg from poliomyelitis in his childhood. He is suffering from progressive severe brisky pain on a particular movement in his left lower back.
On examination while standing pain was elicited by twisting his left leg towards the right side.

What is the injected structure in the associated figure?

How can you explain the progressive development of this somatic pain ?

What is the detailed nerve supply of this structure?

Mention the RF set up for denervation of such structure.

Station13

Tick one correct answer:

1- Disc pathology at level of C4-5 causing C 5 nerve root affection can cause all the following except:

a- numbness over lateral upper arm or over deltoid region
b- weakness in wrist flexion
c- Biceps and brachioradialis reflexes diminished or absent
d- weakness of deltoid and biceps muscles

2- In a case of acute Herpes zoster in thoracic region ,all of the following are correct except

a- Muscle relaxant may have a role
b- Early treatment in first 72 hours can prevent post herpetic neuralgia
c- Antiviral treatment is crucial
d- Intercostal nerve block is useful .

3- As regard intercostal nerve block In a case of acute Herpes zoster in thoracic region , ,all of the following are correct except

a- Decrease pain intensity
b-Improve healing of herpetic eruption
c- Can prevent incidence of post herpetic neuralgia
d- No need to use antiviral treatment with the nerve block

4- Post thoracotomy pain syndrome can be caused by all the following except:

a- Injury of division of nerve root in corresponding intercostal space
b- Muscle splitting or cutting
c- Intercostobrachial nerve injury
d- Neuroma formation in the surgical scar