Station 1

A 50 years man is suffering from cancer head of pancreas causing upper intestinal obstruction. It is associated with huge dilation of the stomach & repeated vomiting.

Prior to intervention & in order to safely perform your block

1-What should you do in the operating theater ?.

2-Figure 1 & 2 show the first intervention

What is the approach expected ?

Why is it safer than the classic David Moore technique ?

Describe the site & level of entrance & the length of the needle used?

Mention the volume & concentration of the solute used ?

3-Figure 2 & 3 show the second intervention

Which levels are aimed at ?

On the lateral view, where should the tip of the needle end?

Mention the volume & concentration of the solute used ?

Station 2

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.

Station 3

A 45 years lady is suffering from back & leg pain.

Pain is mainly on walking & shoots to front & lateral side of the leg on both limbs.

On examination + SLR & + reverse SLR on both limbs.

Describe the dermatome corresponding to the nerves aimed at in the associated figures ?

Describe how to perform reverse SLR ?

In the associated figures, the intervention is considered Selective Nerve Root or intraforaminal block & why ?

Lady was requested to walk on her heel or on her terminal planter surface.

Which walking is more difficult & Painful & Why ?

Station 4

A 42 years lady is suffering from standing & sitting. Walking for half an hour is pain free. She has a history of lumbar fixation 10 years ago for spondylolisthesis between L5 & S1. Unfortunately she fell on the ground 2 years ago with resultant broken nail in situ.

On examination: + reverse SLR on the left side (shooting to the front of left thigh to the medial side of left knee) & left paravertebral tenderness mainly at lumbar 5 level. Back pain was also elicited on medial rotation of both legs while standing.

What is the somatic specific nerve root deserving block & why ?

Figure 1 &2 show anterior & lateral view for RF intervention :

- Which vertebra is aimed at ?

- Which scientific numerical nerve branch is RF targeted at these site?

In order to alleviate the pain of L4/L5 facet which scientific numerical medial branch is also required to denervate?

What is the expected pelvic spastic muscle suffering in such condition ?

Station 5

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

Station 6

An 86 years thin osteoporotic non diabetic lady is suffering from pain on sitting & mainly on standing. Pain is relieved on lying flat.

On examination : Tenderness is maximum on L4 lumbar vertebra ,+ve Right SLR .

Plain xray shows conization at L4 lumbar vertebra

Figure 1 shows a lateral view of lumbar spine.

What is the expected procedure?

What is the possible gauge of the needle used ?

Figure 2 & 3 & 4 show anterior view of intervention :

- Which vertebra is aimed at ?
- What is the length of the needle usually used ?
- What is the site & name of the procedure in figure 4 ?

One month later, a recent A/P & Lat. plain xray were performed (fig 5 & 6):

Why was patient still in agony ?

Which position exacerbates her pain ?

Station 7

1-Which level the needle is targeting ?

2- What is the radiological view?

3- If on the lateral view this needle is at the anterior surface of the body of lumbar vertebra, what is the potential block targeted ?

4- if neurolytic agent is indicated. Mention the volume & concentration of the solute injected at this level ?

5- What is the risk of bilateral neurolytic block at this level ?

STATION *8*

A Patient suffering from advanced recurrent cancer colon is having lower abdominal pain despite pelvic radiotherapy . He is permanently catheterized due to adhesions between colon & posterior surface of urinary bladder .

The associated figure shows a lateral view of an intervention .

What is the name given to such a block?

What are the 2 approaches for this block ?

What is the volume & concentration of neurolytic block injected from each needle?

Patient describes pain shooting to the corresponding lateral surface of the leg on neurolytic injection.

What does it denote?

What should you do ?

Station *9*

What is this radiological view ?

What is the block the needle is targeting ?

In a tunnel (oblique) view what are the structures forming the angle desired ?

What is the most serious complication of this block ?

How to try to avoid such complication ?

Station *10*

A 33 years young lady is suffering from right radicular pain. She is working in a laundry. Pain reaches her middle finger.

Mention one pharmacological ideal drug with details for administration for the first week ?

Intervention is decided, see associated picture :

What is the ideal body & neck position ?

Is Middle line or paramedian approach adopted ?

What is the space targeted ?

In such a level how can you visualize the depth clearly radiologically ?

Mention the volume & concentration of the drugs injected.

Station*11*

CHOOSE/ TICK ONE CORRECT ANSWER

Which of the following statements is (are) true regarding PEC 1 & PEC 2

<u>PEC 1 Block</u> :

Needle insertion in-plane & local anaesthetic spread between pectoralis major & pectoralis minor . {T} {F}

Involves the block of medial &lateral pectoral nerves . {T} {F}

Useful in more extensive breast surgery like mastectomy {T} {F}

<u>PEC 2 Block</u>

Needle insertion is medial to PEC 1 block {T} {F}

Local anaesthetics is deposited between pectoralis minor & serratus anterior muscles{T} {F}.

Aims to block the lateral branch of the T2-4 spinal nerves .{T} {F}

It is performed usually at the level of the third rib . {T} {F}

Station12

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

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?

Station13

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 14

50 years opioid tolerant patient is to undergo Total Shoulder Replacement.

1-Describe a relevant nerve block using nerve stimulator
OR ultrasound machine
with the valuable end points targeted in either procedure.

2- 2ml /hr fixed volume-maximum 300ml- PCA is also provided, mention the details of maximum priming.

3-Prescribed additional oral Pain killers for one week.

Station15

What is the name of this needle ?

Where to you use it in interventional pain ?

What is the name of the catheter used with it ?

Explain its use in caudal neuroplasty in order to cause root anxiolysis ?

In the associated figure what is the terminal site targeted ?

Station16

Patient is suffering from mesothelioma.
Which opioid is more suitable to relief his pain Morphine (MST)
or Oycodone (Oxycontin)? & Why ?

Prescribe a proper prescription for advance chronic mesothelioma ?

Intervention is decided (see associated figure)

What is the target to relieve neuropathic thoracic pain ?

Describe the set up for thermal Radiofrequency ?

Why conventional thermal radiofrequency is acceptable for thoracic neuropathic pain ?