STATION 1

A slim diabetic housewife aged 55 years complains of severe back&leg pain on walking&standing.

On examination: +ve SLR ,weak dorsal& ventral plantar flexion ,tender L5 spine, tender right pyriformis.

Investigations

CRP: +VE 80mg /L (NORMAL up to 5 mg /L)

ESR : 250mm first hour (NORMAL UP TO 20mm)

PLAIN XRAY report reads:Sclerosis of lower end of L4 & upper end of L5 as well as irregular surface of the L4/L5 disc space suggestive of infective discitis .

&MRI revealed severe spondylolisthesis L4/L5 (enclosed pictures).

Six weeks later pain was getting less &her lab improved:

CRP dropped to 23.6mg/L

& ESR first hour to 125 mm.

What is the main possible reason adopted to improve her condition?

/2

How can you further manage?

/2

/4

STATION 2

A 29 years girl is suffering from numb hand, inability to hold goods, pain affecting her right thumb.

Surgical laminectomy performed in order to relieve her compressing symptoms.

In which space needle is present in figure 1?

/0.5

Which nerve root is aimed at?

/1

Is it an anterior or posterior laminectomy &why?

/1

Where is the expander(bone graft) fixed in figure 2?

/ 0.5

Describe the proper regime for <u>starting</u> administration of Gabapentin in order to relieve her residual pain?

/2

/5

STATION 3

A 55 years male is suffering from Hepatocellular Carcinoma affecting his left lobe & metastasizing to his 4th lumbar vertebra.

An orthopaedic surgeon fixed his lumbar vertebra in order to help him to sit& stand (see associated X-ray picture).

Nowadays his epigastric pain become intolerable despite opiate medication.

And his walking became excessively difficult while bending forwards associated with shooting burning pain in his left leg.

Briefly describe interventional procedures - site ,volume & concentration of neurolytic drug- used to alleviate his epigatric pain ?(see the interventional pictures)

/2

Analyze the possible causes of his left leg pain? & the different possible remedies.

/3

Explain what could be the muscular cause of his bending forwards on walking?

/1

/6

STATION 4

Eighty years diabetic lady weighs 53 kg . She complains of inability to sit comfortably on the left side with associated discomfort in the perineum.She has also urinary frequency & urgency in her back passages (anal symptoms).

On Examination:

Absent tenderness on heavy lumbar percussion .What can you exclude?

/1

No Paravertebral tenderness. What does this mean?

/1

Lack of tenderness on pressure on PSIS .What this test denotes ?

/1

Pain was not elicited on inward rotation while knee & hip were flexed on the left side .Which pain generator is thought of?

/1

Tenderness was elicited on pressure on the ischial tuberosity on the left side.What is your preliminary potential diagnosis? and why ?

/1

The block (see the figures) using C-arm improved her condition. Describe the technique ?

/2

/7

STATION 5

A 51 years man is suffering from right sided upper back pain at the level of right iliac crest & associated with pain curving from his back to the belly below the level of umbilicus.Pain comes at the end of a busy active day & is burning. He has never been exposed to any surgery.

On examination:Right Parvertebral tenderness at the level of T12,L1 spine elicited on lateral rotation of the spine & shooting to the right iliac crest.

Pressure on the 12th. rib in scapular line causes the pain shooting to the lower belly below the level of umbilicus .

What is your detailed diagnosis?

/2

How can you explain his 12th rib pain?

/2

Intercostal block improved temporarily the lower belly pain? How can you prolong the duration of pain relief (see associated figure)?

/1

/5

STATION 6

A 33 years old laborer is suffering from left leg pain at the end of his standing working day (painter).His pain covers the front of lower left thigh & upper left leg in a non dermatomal discrete distribution . Pain is burning, worst in winter associated with oedema of left leg.

What is the level of vertebral block in fig 1?

/0.5

Why has it been chosen as the single site?

/1

What is characteristically known about its transverse process?

/1

The procedure was properly done radiographically yet he was unable to lift his leg with sense of numbness in the front of his left thigh for 3 hours post-procedure.How can you explain such a response?

/2

Enumerate the numbers & sites of lumbar sympathetic ganglia ?

/1.5

/6

STATION 7

A 58 years male patient is suffering from advanced transitional cell carcinoma of the bladder.

He is taking on his first pain clinic visit 60 + 60 + 60 mg MST (slow release morphine) but pain score was intolerable : VAS-visual analogue score-= 9 (out of 10).

The resident admits the patient& additionalIV dose was given 30 mg 3 times in 24 hours.

What is the calculated proper total oral dose required of MST to be given the next day?

/2

How much will be the on demand dose for break through pain?

/1

VAS dropped to 3 (out of 10) but one week later patient became slowly unconscious.

A senior pain clinician decided to stop the MST &to shift him to fentanyl patch.

Why?

/2

/5

STATION 8

Knee surgery had to be done under peripheral nerve block for a tolerant opiate patient aged 50.

Why efficient peripheral block is superior to central neuroaxial?

/1

What are the major nerves required to be blocked for Total Knee Replacement?

/1

The associated landmarks were performed in order to do one block under nerve stimulator .

Kindly identify the bony landmarks:

1
2
3
4

/2

His opiate regime were given orally &additional PCA was prepared for early postoperative pain relief.

Describe a basic standard regime using the PCA for **an opiate tolerant** patient?

/2

/6

STATION9

A 38 slim underweight dark Sudanese patient from Darfour is unable to stand, to sit & has back pain at rest .Pain is relieved partly by thoracic flexion leaning to one side.

MRI Conclusion:

Intraspinal epidural soft tissue encroaching on neural exit foramen more on the left.

Intraoperative Finding

Evacuation of an abscess anterior to **posterior longitudinal ligament**.

From the attached MRI pictures:

Is it T1 or T2 pictures & Why?

/1

Which vertebra is mostly affected?

/1

Is it on T1 or T2 MRI that gadolinium administration shows marginal enhancement?

/2

How can you explain pain relief by the adoption of thoracic flexion posture (intrauterine foetal position)?

/2

/6