Cairo University
National Cancer Institute
Anesthesiology, I.C.U.& Pain Relief Department

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M.D. Degree
Anesthesiology and Pain Relief

(OSCE) Nov , 2008

Station 1

1. What is the type of vertebra in the manican provided in I? ½ point ....

   What is the name given to the shaded blue area? ½ point ....

   Mention which is the allowable functional movement? 1 point .....

   Where does the sympathetic chain lie in the relevant upper vertebra? 1 point .....
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   and why is cautiousness required in such sympathetic block? 1 point....
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2. What is the dermatomal highlighted region in the picture provided corresponding to? ½ point ....
   ---

   which reflex can be affected in such level? ½ point .....
   ---

   what denotes a diminished reflex? 1 point .....
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3. Mention the name of the structure stained in red in the lumbar vertebra provided. 1 point .....
   --- --- ---

   and mention which structure travel along the inner upper part of the transverse process of the lumbar vertebra 1 point.....
   --- --- of --- ---

4. What is the name given to a needle with a 5 mm active tip? ½ point .....
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   and what would a 10cm needle length be used for (with 5 mm active tip) in pain practice? ½ point .....

Total points **.../ 9**

Station 2

A 49 year old lady is suffering from radicular pain on the left arm up to her left big thumb on prolonged driving. A paramedian block was performed in the operating theatre under C-arm. The patient received this X-Ray as a document for the relevant procedure after the block was done.

1. What is the position of the patient during this procedure?
   Supine or prone? ½ point .....

2. What is the type of needle used and its gauge?
   .... 1 point .....

3. Which space is the tip of the needle?
   ..... ½ point .....

4. What is the target cervical nerve in this space?
   ..... 1 point .....

5. What is the main position for intraforaminal selective cervical nerve root ?
   Lateral prone or oblique? 1 point .....

6. What is safer in the un-experienced hand for cervical nerve root block this paramedian technique or intraforaminal selective nerve root block technique ? 1 point .....

   & why? 2 points .....

Total points .../ 7

Station 3

1. What is the expected structure in yellow labeled 1? ½ point .....
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   and what does its function cause on GIT? ½ point .....
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2. What is the structure in red labeled 2? ½ point .....
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   and what is the technique given to its transfixion ½ point .....
   --- --- --- ---

3. Explain the superiority of transfixion compared to the old classic David Moore technique? 1 point.....

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4. What is the structure labeled 3? And at which level is it pierced by 2? 1 point.....

   --- pierced at level ---

5. What is the structure in yellow 4? ½ point.....
   --- ---
   Enumerate the roots involved. 1 point.....
   ---

6. What is the structure in yellow 5? ½ point.....
   --- ---

   Where is the dye present in the lower 2 views of the associated X-Ray?
   In A/P:
   In Lat.
   What is the volume, standard concentration & solution used in such procedure? 2 points.....

Total points **.../ 8**

Station 4

A 68 years obese diabetic stunted lady is suffering from inability to stand, to walk & in agony even when sitting. She is also complaining of pain on medial side of upper right thigh.

On Examination:

Walking with extreme difficulty while leaning forwards.
Unable to lift her legs to lie on couch
Unable to raise right leg although passive lifting is not painful.
On spine percussion tenderness on L4 & L3.
Tender paravertebral space mainly right L3 with scoliosis (convexity to the left) & right upper part of the thigh mainly on the medial side(on lesser trochanter).

Radiographically: MRI (fig 1) CT (fig 2) Bone scan (fig 3) were done

1. Why is fig. 1 MRI and not CT? ½ point.....
   ---
2. Is it T1 or T2 in the MRI shown in fig. 1? ½ point.....
   ---
3. What are the possible lesions present in L2 & L3? 1 point.....
   L2----------
   L3 ----------
4. Why an additional CT is an advantage in such case? ½ point.....

   Where is the likely pathology: anterior or posterior part of the body of the vertebra? ½ point.....
   ---
5. The Gama camera (bone scan – fig 3) is fixed and hanging from the ceiling of the room. 1 point.....
   What is the position of the patient in A? ----------
   What is the position of the patient in B? ----------

   Where is the likely vertebra level of the osteoporosis & collapse? ½ point.....
6. The proper intervention was done under sedation and X-Ray control (Fig. IV) 2½ points.....
   a- what is the likely intervention?

   b- Why is the lat. view vital while injecting cement?

   c- What is the particular character of the cement?

   d- What is the result of the cement leak posteriorly ?

Total points .../ 7

Station 5

A male patient aged 59 years came to the pain clinic having burning Suprapubic pain, associated with hematuria , frequency & pyuria.. & in distress despite medications.
He has been diagnosed two years before as having irresectable cancer bladder & had suprapubic radiotherapy .

Pathology: Squamous cell carcinoma .

On Examination:
The patient is pale,
+ ve ballotment (hydronephrotic kidney).
C.T scan:
Collapsed urinary bladder totally occupied with soft tissue density likely representing tumor lesion. Extra vesical extension could be seen.
Foley's catheter balloon is noticed within the bladder.

1. Why is the patient pale? ½ point.....
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2. Explain the cause of hydronephrosis. ½ point.....
   ---
3. Why does the urinary bladder look contracted? 1 point.....

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4. What is the main type of pain present? ½ point.....
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5. Mention the name of the pharmacological drugs effective in such type of pain. 1 point.....
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6. What is the intervention likely to improve his cystitis? ½ point.....
   ---
7. Mention your technique to perform such block. 1 point.....

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8. What is the solution used for longer duration of effect? ½ point.....
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9. What is the possible complication of such block? ½ point.....

Total points **.../ 6**

Station 6

Mrs M. S. aged 43 years , is suffering from her back for the last 5 years. Nowadays the pain is mainly on the right shooting and going down until the small toes on the right side. She has severe pain in the early morning and on sneezing and on sitting for a long time. She gets the pain on walking for long distances in her right leg. She has never had any injection in the back before.

On examination she has positive straight leg raising on the right but not on the left. Right ankle reflex diminished. She has facet joint pains at L5/S1 both on the right and left. Her MRI shows mainly disc protrusion between L5&S1. I have arranged to do an intervention for both her leg pain & back pain.

1- What is the main nerve root compressed? ½ point.....

& why (mention at least 2 reasons) 1 point

2- For intervention patient lied prone in the operating table.
What is the position of the C arm in figure 1? ½ point.....

Which nerve root is directly targeted ? ½ point.....

3- What is the view in figure 2 ? ½ point.....
-------- -------- view

4- Where is the tip of spinal needle?
Posterior to ------ & below-------- 1 point.....

5- What is the view in figure 3 ? ½ point.....
---------- view

6- Why is it essential before injecting your medications ? ½ point.....

7- What does the dye delineate ? 1 point.....

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8-What is the intervention required to relieve her back pain? ½ point.....

Which view is required by the C-arm? ½ point.....

Total points .../ 7

Station 7

1. What is the advantage of the sprotte needle (Fig . 1) 1 point....

   and what is its usual use in the anesthetic practice?

   1 point.....

2. What is the gauge of the spinal black needle labelled II

   & what is its usual use for intervention for pain of lower back? 2 points

3. What is the needle with the associated tubing labelled III? 2 points ...

   and what could a 100mm needle length be used for, in nerve block for the lower limb?

4. What is the usual length of the catheter at the 4th. Terminal mark in III? ½ point...

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   and what is the minimum gauge epidural needle required to use this catheter? ½ point...

Total points **.../ 7**