Presentation of clinical vignette and questions

A 23 year-old male with a L1 burst fracture was presented to the emergency department of your centre, following a traffic accident occurred at 30 minutes ago, around midnight. Patient was conscious and complaining about back pain. Physical examination revealed paraesthesia in both lower extremities with normal motor and sphincter functions. You can find the sagittal and axial computed tomography images of the patient below.

1. Would you obtain an emergent MRI scan?

◯ Yes, probably

◯ I don't know

◯ No, probably not

◯ No, definitely not

2. Would you perform surgery on this patient?

◯ Yes, probably

◯ I don't know

◯ No, probably not

◯ No, definitely not

3. If you decide that surgery is required, would you perform the procedure at night?

◯ Yes, probably

◯ I don't know

◯ No, probably not

◯ No, definitely not

4. If you decide that surgery is required, would you initially use a posterior approach?

◯ Yes, probably

◯ I don't know

◯ No, probably not

◯ No, definitely not

If you are certain that you would not initially use a posterior approach (No, definitely not is your answer to question 4), some questions will be skipped and you will be directed to infection section.

Treatment Choices

5. If you were to choose an initial posterior approach, would you perform surgical release?

◯ Yes, probably

◯ I don't know

◯ No, probably not

◯ No, definitely not

6. If you were to choose an initial posterior approach, would you perform percutaneous fixation?

◯ Yes, probably

◯ I don't know

◯ No, probably not

◯ No, definitely not

7. If you were to choose an initial posterior approach, would you seek to obtain fusion via bone grafting (with any type of bone material)?

◯ Yes, probably

◯ I don't know

◯ No, probably not

◯ No, definitely not

8. If you were to choose an initial posterior approach, into which vertebrae would you implant the fixation material?

◯ T10   ◯ L2

◯ T11   ◯ L3

◯ T12   ◯ L4

◯ L1 (fractured vertebra)   ◯ Others (please specify)

9. If you were to choose an initial posterior approach, would you perform a complementary anterior step?

◯ Yes, probably

◯ I don't know

◯ No, probably not

◯ No, definitely not

10. If you were to perform surgery, would you prescribe post-operative bracing?

◯ Yes, probably

◯ I don't know

◯ No, probably not

◯ No, definitely not

11. The patient is doing well 3 months after surgery. For how long after surgery would you provide follow-up?

◯ No longer than 3 months   ◯ 2 years

◯ 6 months   ◯ > 2 years

◯ 1 year

12. After 12 months, the patient is doing very well (with no pain). Would you routinely remove the material?

◯ Yes, probably

◯ I don't know

◯ No, probably not

◯ No, definitely not

Infection

In the event of an acute, deep (below the fascia) surgical-site infection, if you decide to perform revision surgery

13. Would you change the material?

( ) Yes, definitely

( ) Yes, probably

( ) I don't know

( ) No, probably not

( ) No, definitely not

14. How many days of antibiotic therapy would you prescribe?

( ) 7 days

( ) 14 days

( ) 21 days

( ) 45 days

( ) 90 days

Classification

15. Do you use defined classification systems in the management of thoracolumbar fractures?

◯ Always

◯ Frequently

◯ Occasionally

◯ Never

16. If you use classification systems, which of following would you prefer?

◯ Denis Classification

◯ Thoracolumbar Injury Severity Score (TLICS)

◯ AOSpine Thoracolumbar Fracture Classification System

◯ McCormack Load Sharing Classification System

◯ Others (please specify)

17. If you use classification systems, how it affects your treatment choice?

◯ I always use the treatment methods recommended by the classification systems

◯ I frequently use the treatment methods recommended by the classification systems

◯ I occasionally use the treatment methods recommended by the classification systemsuse the treatment methods recommended by the classification systems

◯ I never use the treatment methods recommended by the classification systems

18. How do you classify the fracture of the clinical vignette according to AOSpine Thoracolumbar Fracture Classification system?

◯ A1

◯ A2

◯ A3

◯ A4

◯ B1

◯ B2

◯ B3

◯ C

◯ I have no idea

Personal Information

19. Speciality

◯ Orthopedic surgeon

◯ Neurosurgeon

20. Age

[   ]

21. Sex

◯ Male

◯ Female

22. Type of the work centre

◯ University Hospital

◯ Training and Research Hospital

◯ Public Hospital

◯ Private Hospital

◯ Private Practice

◯ Others (please specify)

23. Degree

◯ Resident

◯ Specialist

◯ Chief assistant

◯ Assistant professor

◯ Associate professor

◯ Professor

24. Experience in spinal surgery

◯ < 5 years

◯ 5-10 years

◯ 10-15 years

◯ >15 years

25. How many patients with vertebral fractures do you manage each year?

○ <10   ○ 50-100

○ 10-25   ○ >100

○ 25-50