

Radiculopathy caused by iatrogenic pedicle fracture compressing upper nerve root

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Purpose

- Pedicle screw insertion
 - critical technique for lumbar fusion surgery
 - complication
 1. Screw loosening
 2. Screw malposition
- Case
 - iatrogenic pedicle fracture → upper nerve root radiculopathy

Methods

- M/44

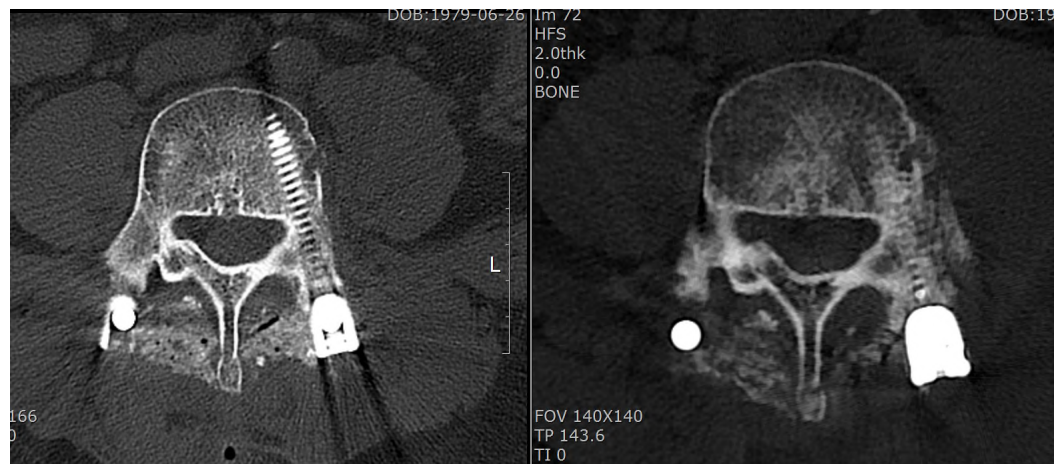
C/C : Lt leg radiating pain and weakness

Past medical Hx

- 3 times of lumbar surgeries in other hospital
- L4-5 posterior lumbar interbody fusion
- L4 Lt screw reposition

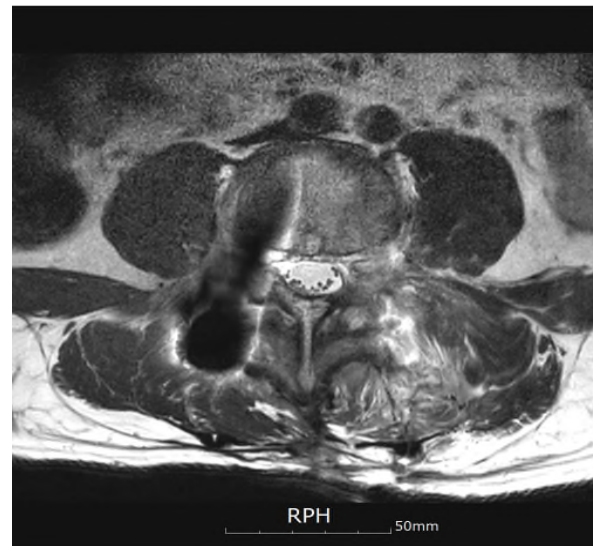
Methods

- CT & MRI
 - L3 nerve root compression by Lt L4 pedicle fracture
- Plan
 - L4 screw remove and partial pediculectomy



Results

- L4 Lt screw remove and partial pediclectomy
 - fractured bone fragments was removed.
 - Exiting L3 root was performed decompression by partial pediclectomy.



Conclusion

- Lumbar pedicle screw misplacement : 5-41%
- Accuracy ↑ : fluoroscopic guided > freehand
- Screw lateral violation and lateral pedicle fracture
 - > exiting nerve root irritation -> surgical treatment
- Newly radiculopathy following pedicle screw insertion
 - > confirm diagnostic image (CT and MRI) / diagnostic nerve root block
 - > surgical treatment