

# **ROLE OF INTRAOPERATIVE NEUROMONITORING IN A CASE OF CERVICAL INTRAMEDULLARY TUMOR**

**By**

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DYPMCH**

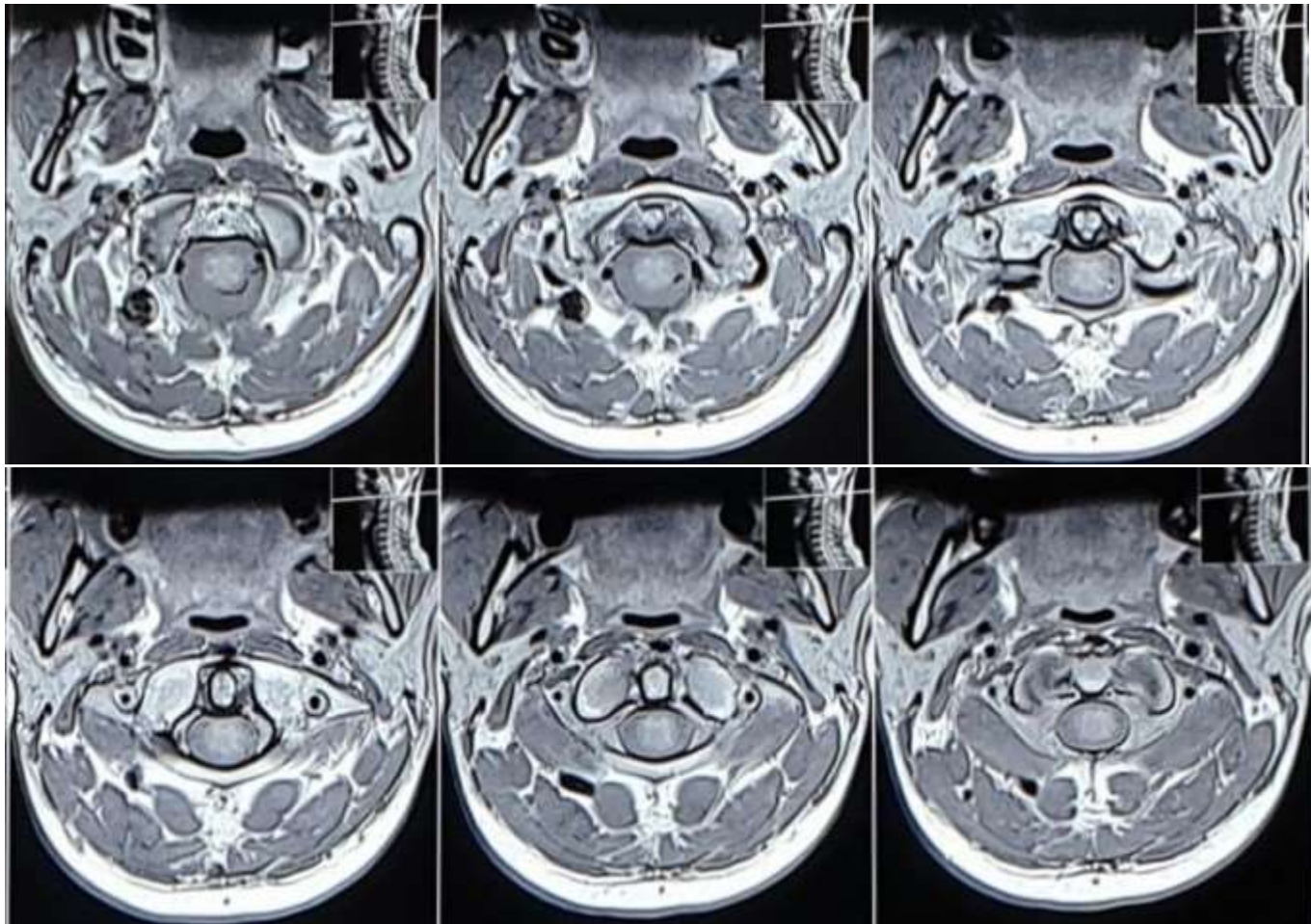
- 29 year old gentleman
- CHIEF COMPLAINTS
  - c/o neck pain and, left upper limb tingling and numbness since 10 days
  - No h/o trauma
  - No h/o previous surgeries
  - No known co morbidities

O/E

- Conscious, oriented
- Vitals stable
- Grade 4/5 power in left upper limb
- All other limbs has power 5/5









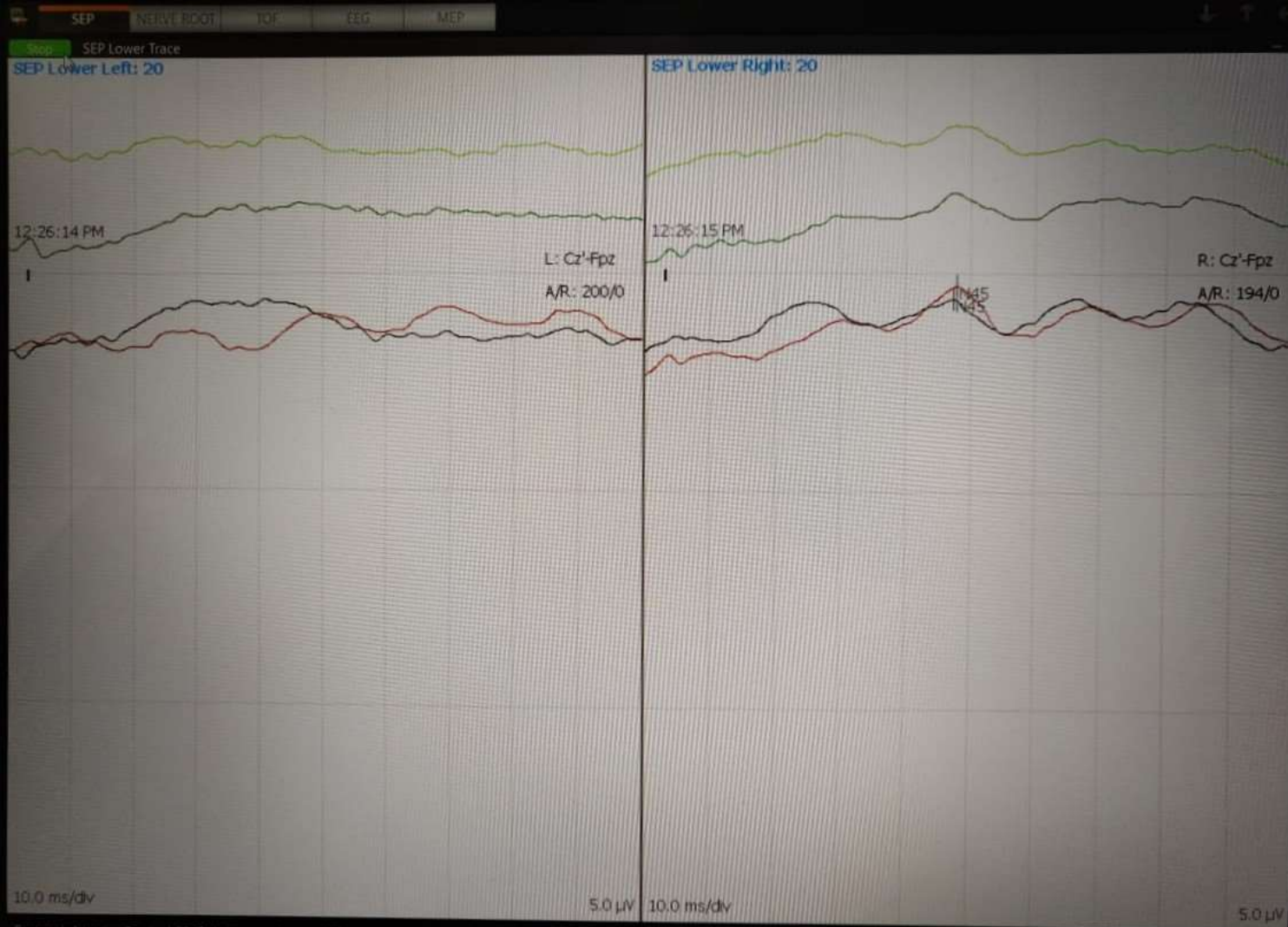
- Posted for C<sub>3</sub> C<sub>4</sub> C<sub>5</sub> laminectomy and excision of intramedullary tumor after routine work up and anaesthesia clearance

# IONM





# SSEP



# MEP





# IMMEDIATE POST OP

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Avanto  
Ex 2471  
Se 2/12  
Im 6/13  
CSPINE  
Madhav Devkate  
PRN-1-00701218  
16-Feb-2022  
M  
029Y

A

EPS  
Dr Anil Patil  
-2.68 mm  
TE-84  
FA-100  
3000  
SE-SE  
2D-2D  
NSA-1  
SAGITTAL



F

# POST OP DAY 10

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- Intraoperative neurophysiological monitoring (IOM) in spinal surgery helps to reduce the incidence of postoperative neurological complications
- Combined motor and somatosensory evoked potentials are considered mandatory for a successful IOM.

- Somatosensory evoked potentials(SEP) helps to assess the functional integrity of sensory pathways from the peripheral nerve through the ascending tracts to the sensory cortex.
- Motor evoked potentials (MEPs) allow selective and specific assessment of the functional integrity of descending motor pathways, from the motor cortex to peripheral muscles.

# The mechanism of IOM

- Any manipulation done in the vicinity of the sensory or motor pathways results in decreased amplitude of MEP or then increased latency of the SSEP.
- This monitoring is done realtime and as the tumor is excised, any traction transmitted to these tracts is detected instantaneously. Use of CUSA is mandatory to minimise this traction injury.

# CONCLUSION

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- Safe surgery
- Favorable surgical outcome
- Surgeon's medicolegal safety.

Thank  
You