An NF-1 patient with multiple spinal tumors and cord compression: is MRI adequate as a diagnostic method?

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Disease Journey

2016 June
43 years old gentleman
Bilaterally UL numbness, hand clumsiness
Four limbs power full
UMNL signs:
- Brisk jerk 4 limbs
- Hoffman sign +ve
Not much back pain/sciatica symptoms.

2017 – 2018
Opted for conservative mx
Monitored with interval scans
UL sx static
No back pain/sciatica/sphincter disturbance all along

2019 Dec
Subjective LL weakness
Unsteadiness required sticks, recurrent fall
UL: C5-T1 power full, impaired sensation
LL: L2-S1 power full
Decided to workup with MRI for OT

2020
ADL dependent, cannot hold chopsticks
Worsening gait instability

Treatment

1) ASF, C4 corpectomy

2) Dural repair
Post op Cx: pseudomeningocele
70.3 mm long x 23.1 mm deep x 76 mm wide prevertebral collection present anterior to C3-C6 extending to the right retro-thyroid region, between the carotid artery and the right lobe of thyroid.

3) L3-4 laminectomy
Worsening lower limb symptoms during rehabilitation.
MRI: worsening obstruction
Pathology: spinal cell, ganglieneuroma

CT C spine: OPLL with cervical stenosis
C2-4 most severe C3: AP diameter of the spinal canal is narrowed to 8mm with cervical cord encroachment.
Better visualized in CT.

Result & Conclusion
For an NF young patient presenting with mixed upper and lower motor signs and symptoms, differential diagnosis other than nerve sheath tumor should not be overlooked.
OPLL, usually in the C spine, appears more common in Asian, whose typical presentation is in the fifth to sixth decades of life.
However, in this young patient
it still worth to actively rule out bony compression such as OPLL which is better delineated by CT