Astrocytoma

Last Updated: October 1, 2018

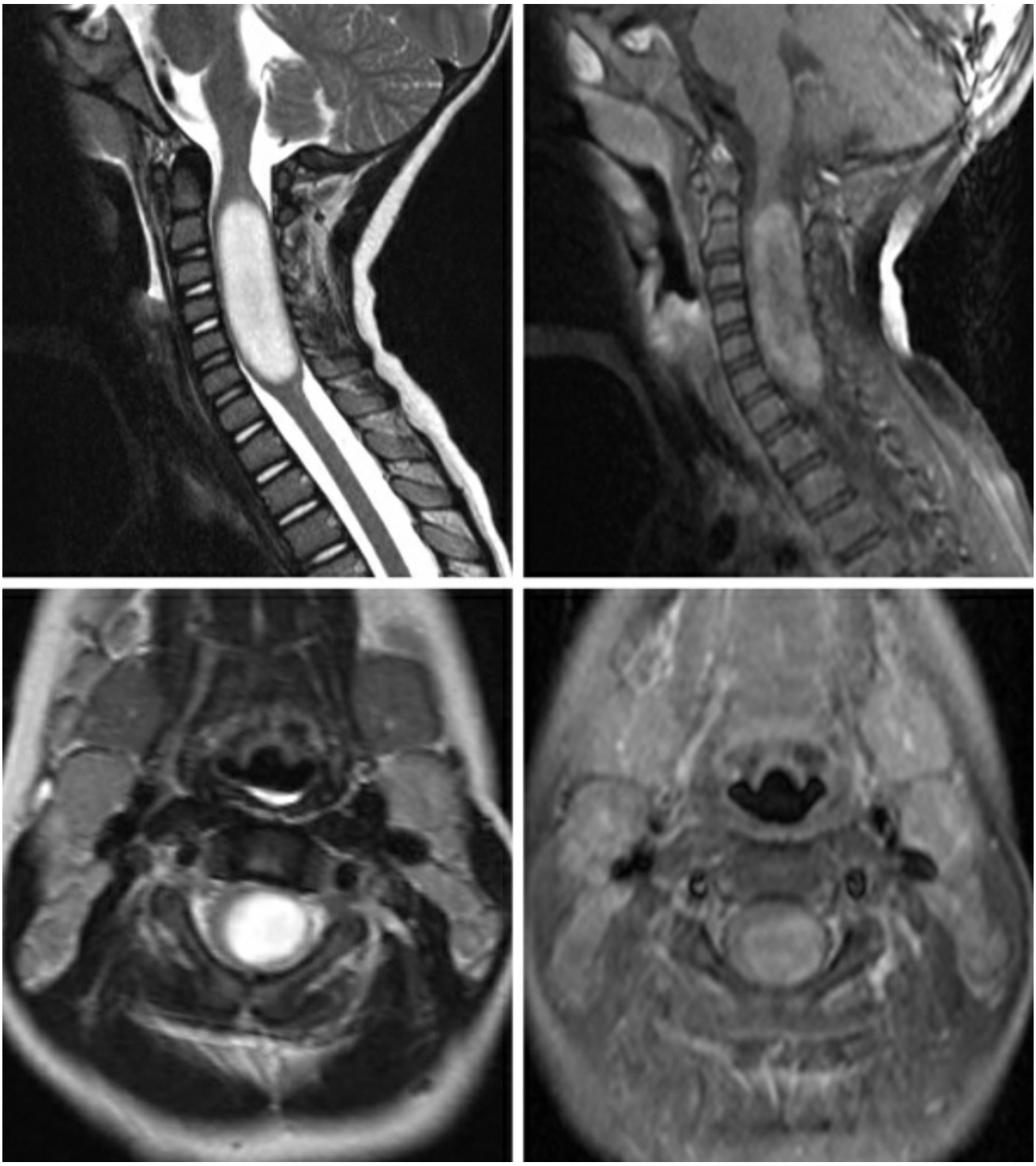

Figure 1: Sagittal and axial T2 (top row left and bottom row left) and sagittal and axial T1 post-contrast fat-saturated (FS) (top row right and bottom row right) images of the cervical spine

demonstrate a slightly eccentric, T2 hyperintense mass with patchy enhancement expanding the cervical spinal cord in this pediatric patient who presented with paresthesia and weakness in the upper extremities. The imaging appearance, location, and clinical history favor astrocytoma although other intramedullary neoplasms could be included in the differential diagnosis.

Clinical Features

- Age groups: Pediatrics > Adults (3rd to 5th decades of life).
- Gender: M > F
- Presentation: Pain, paresthesia, motor symptoms.
- Associations: NF-1

Imaging

- General:
    - Location:
        - Thoracic > Cervical spinal cord
        - Eccentric > Central within the spinal cord
    - Appearance:
        - On average 7 vertebral bodies in length or more
        - +/- Tumoral cysts
        - +/- Hemorrhage
- Modality-Specific:
    - Radiography:
        - +/- Dorsal scalloping of vertebral bodies (less common than ependymoma)
    - CT and CT Myelography:
        - Spinal cord not well evaluated. May see spinal cord swelling.
        - +/- Dorsal scalloping of vertebral bodies (less

common than ependymoma).
    - MRI:
        - T1: Isointense or hypointense
        - T1 + Contrast: Heterogeneous or patchy enhancement more often than homogenous enhancement.
        - T2: Hyperintense. Tumoral cysts and hemorrhage when present may be hypointense.
        - STIR: Hyperintense

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References

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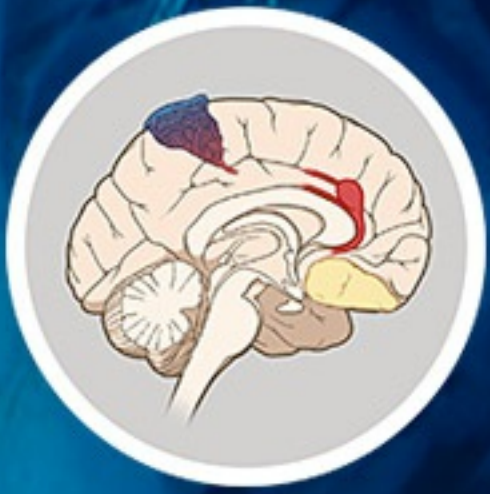

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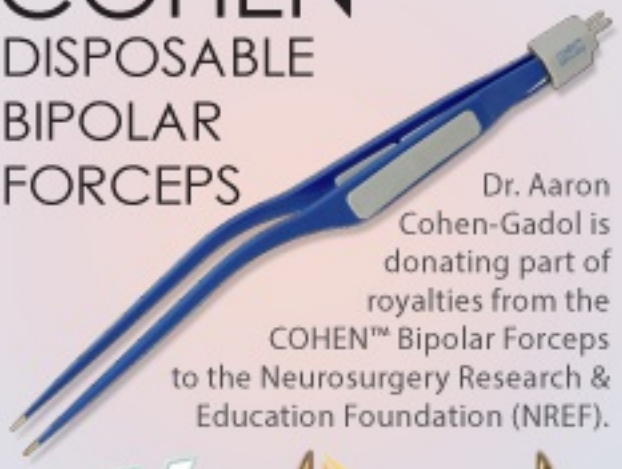

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