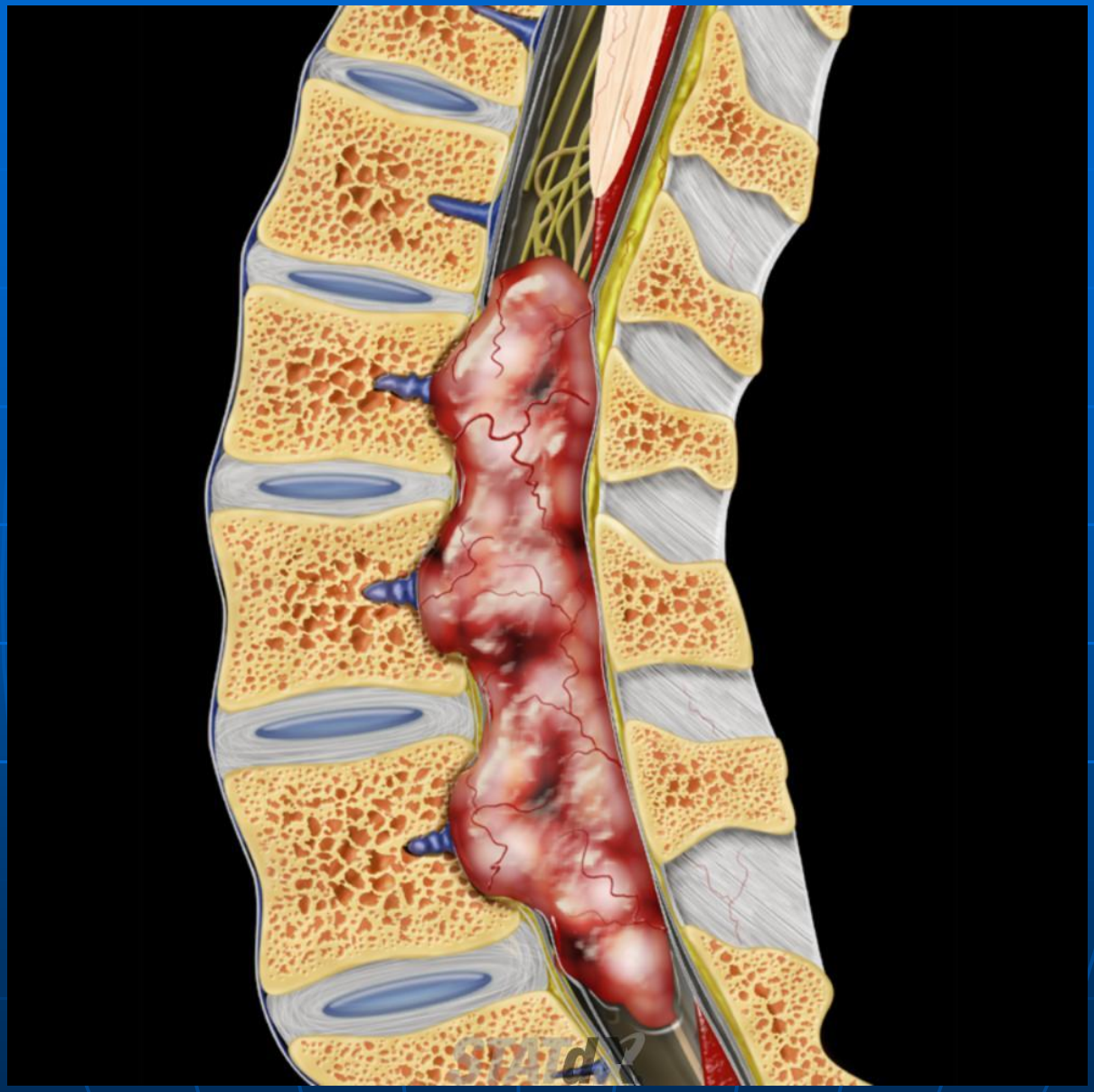
Ependymoma, Myxopapillary

- Slow-growing glioma arising from ependymal cells of conus, filum terminale, cauda equina.
- WHO grade I
  - No malignant degeneration
- May have local seeding or subarachnoid dissemination.
- Subarachnoid hemorrhage.

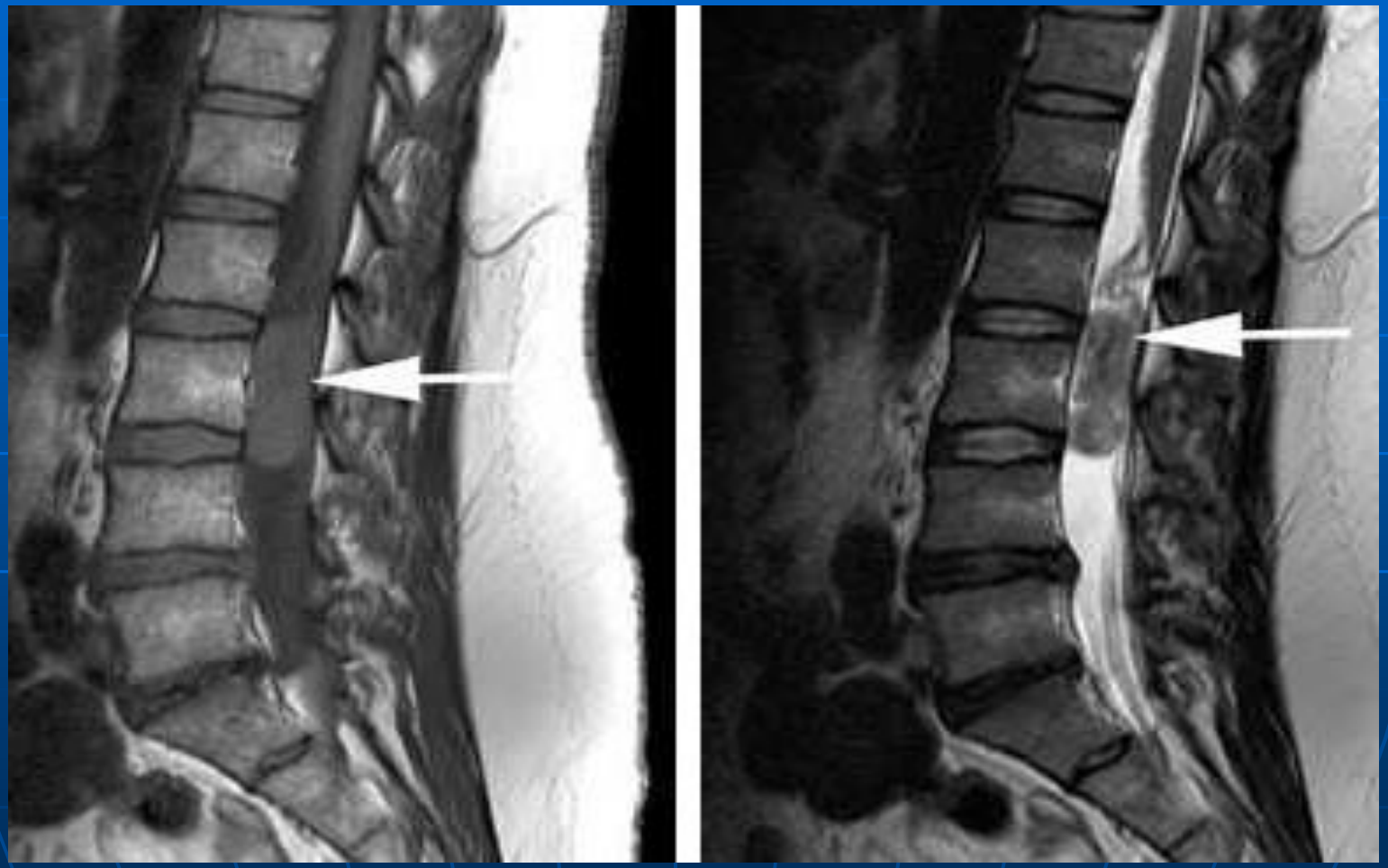


Sagittal graphic shows a multilevel cauda equina myxopapillary ependymoma. Mass is vascular, with old intratumoral hemorrhage & acute subarachnoid hemorrhage along the dorsal conus. Indolent tumor growth has enlarged spinal canal & remodeled posterior vertebral cortex.

Imaging

- Usually spans 2-4 vertebral segments
  - May fill entire lumbosacral thecal sac
- Ovoid, lobular, sausage-shaped
- CT/radiographs
  - ± osseous canal expansion, thinned pedicles, vertebral scalloping
  - May enlarge, extend through neural foramina
- T1WI: Isointense→ hyperintense to cord
- T2WI: Almost always hyperintense to cord
  - Hypointensity at tumor margin = hemosiderin
- T1WI C+: Intense enhancement

Myxopapillary ependymoma



Tends to occur in the conus medullaris or filum terminale. It is the most common tumor in this region.

Myxopapillary Ependymoma

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Sagittal T1WI C+ MR exhibits avid homogeneous tumor enhancement ⇨. Note diffuse intradural tumor seeding →. Smaller tumors tend to displace the cauda equina nerve roots, whereas large tumors often compress or encase them.

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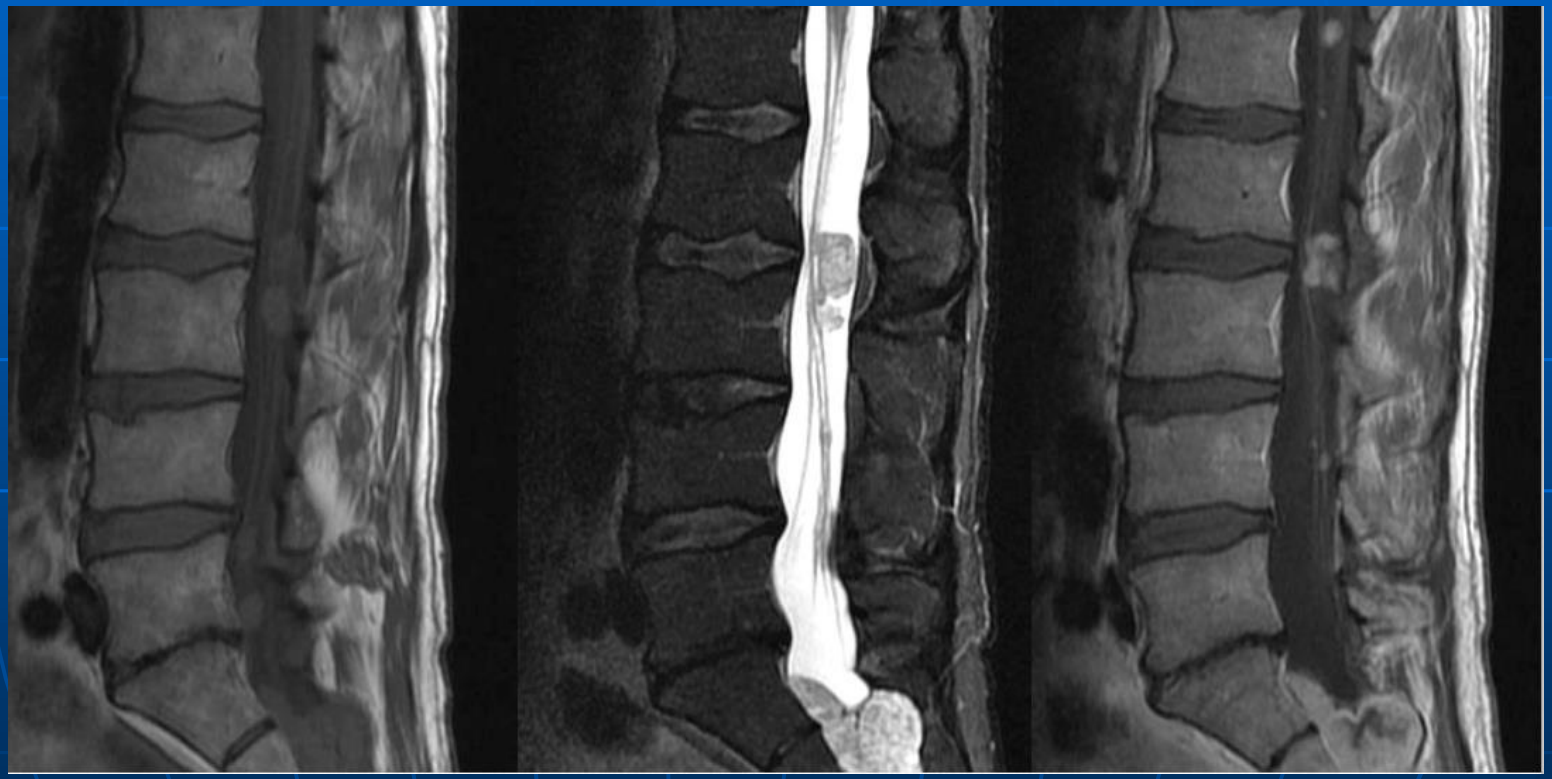
Sagittal T1WI C+ MR illustrates mildly enhancing, well-delineated, intradural, extramedullary mass in the lumbar spine →. ME usually appear as round mass in the filum, sometimes involving the conus. A connective tissue capsule without firm attachment to or incorporation of surrounding spinal nerve root makes MEs highly amenable to gross total removal.

Myxopapillary Ependymoma



DDx:

- Nerve Sheath Tumor (NST)
  - Small tumor associated with nerve root rather than filum terminale
  - Large, multilevel NST may be indistinguishable
  - Often extends through neural foramina
  - Hemorrhage less common
- Intradural Metastases
  - Smooth or nodular enhancement along conus, nerve roots
  - Enhancing mass(es), frequently multiple
- Acquired Epidermoid Cyst
  - Hypointense on T1WI
  - Hyperintense on T2WI: Similar to CSF
  - No enhancement
  - Typically small
- Meningioma
  - Usually isointense with cord on T1 and T2WI
  - More common in thoracic, cervical spine
  - Conus/filum location unusual
  - Hemorrhage uncommon
  - Osseous remodeling rare
- Paraganglioma
  - Rare tumor of cauda equina
  - May be highly vascular
  - Indistinguishable from ME, although usually smaller