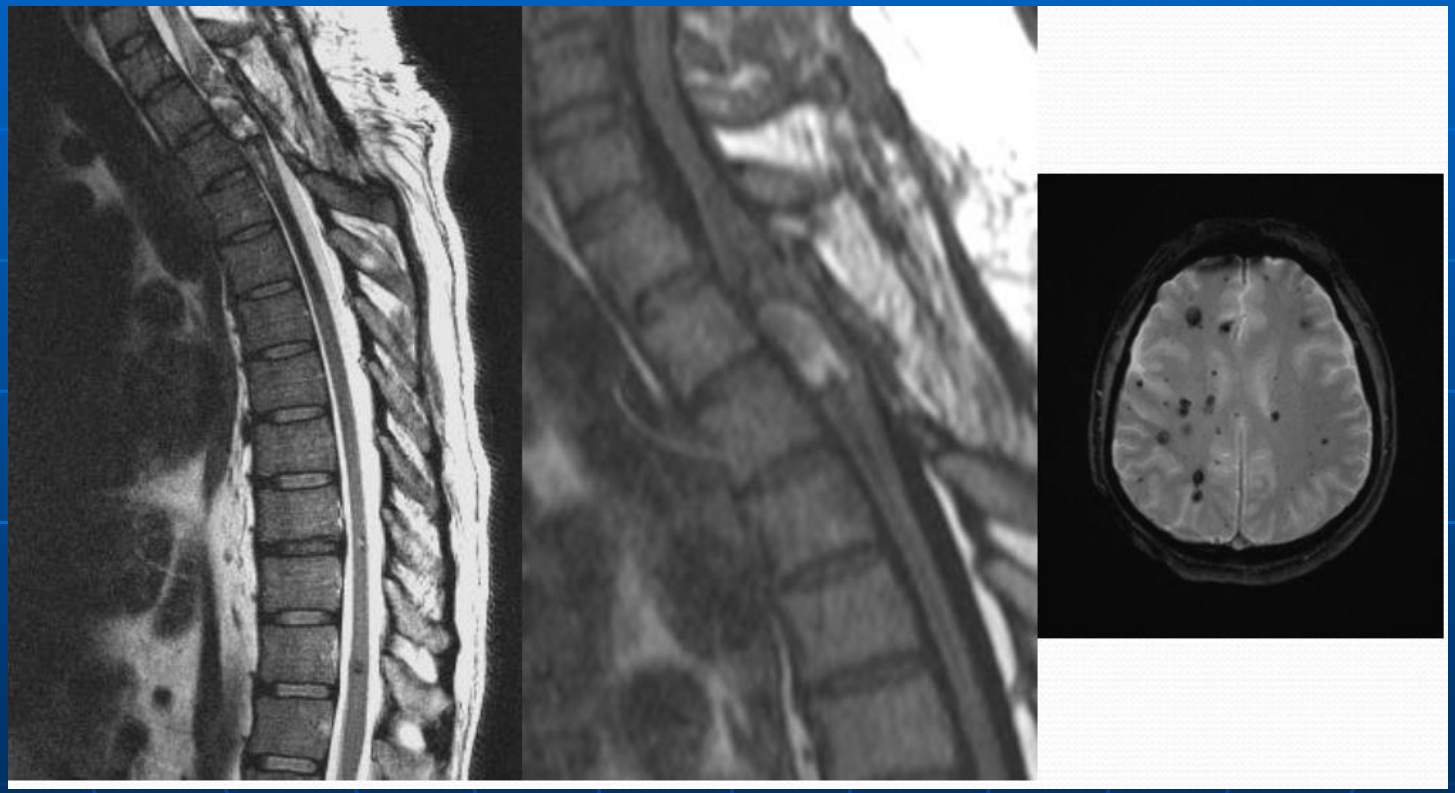
Cavernous Malformation

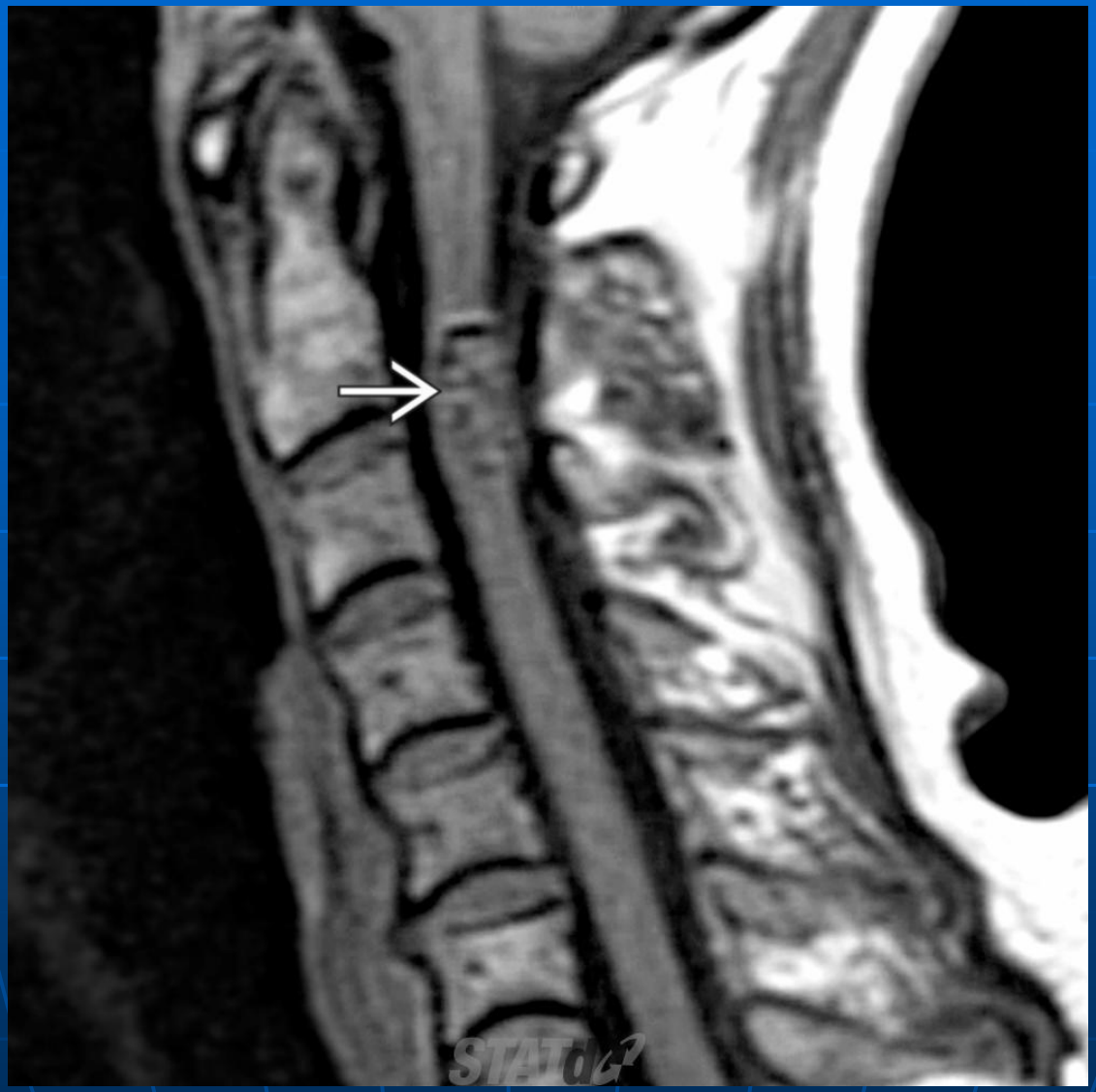
- Vascular lesion with lobulated, thin, sinusoidal vascular channels and no interspersed neural tissue.
- Cervical (40%), thoracic (50%)
- Multiple (familial) CM syndrome (20%)
  - Familial CMs are at high risk for hemorrhage and formation of new lesions
- Clinical Issues
  - Typically occurs in 3rd-6th decades
  - M:F = 1:2
  - Broad range of dynamic behavior (may progress, enlarge, or regress)
  - Surgical resection is mainstay of symptomatic CM
  - Variable in outcomes literature: 50-66% improve, 28% stabilize, and 6% deteriorate postoperatively

MR

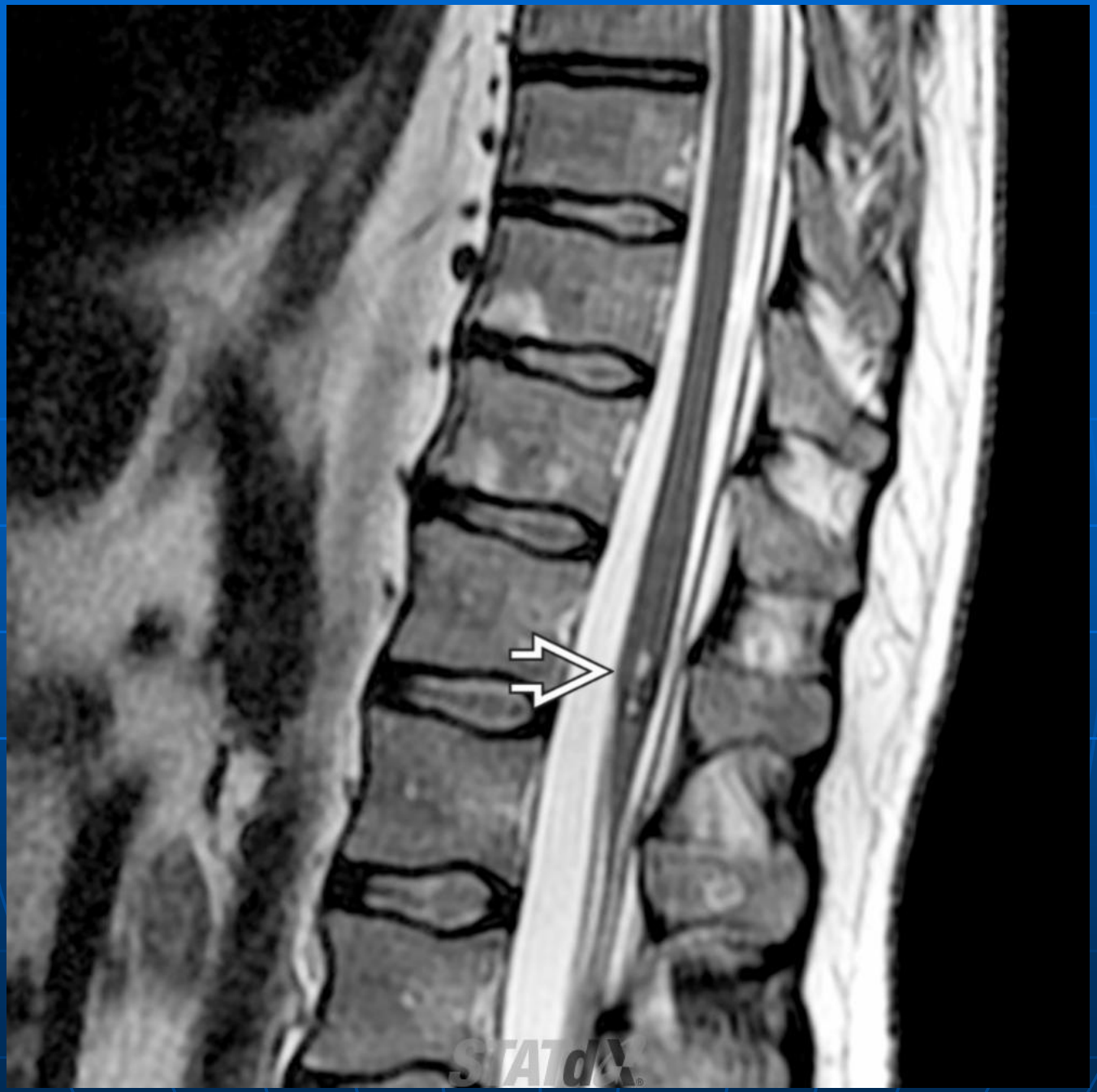
- **T1WI**
  - Heterogeneity due to blood products of varying ages
  - Typical speckled "popcorn" heterogeneous signal
  - Small lesion may not show obvious heterogeneous signal
- **T2WI**
  - Heterogeneous, hypointense hemosiderin rim
  - Small lesion may not show obvious heterogeneous signal, may show only focal low signal
  - Typically no edema unless recent hemorrhage
- **T2* GRE**
  - Prominent "blooming" due to susceptibility effects
- **T1WI C+**
  - Enhancement absent/minimal

Cavernous Malformation





Sagittal T1WI MR shows the typical appearance of a CM of the spinal cord. A heterogeneous, slightly expansile intramedullary lesion is seen at the C2-C3 level (white solid arrow). Faint "salt and pepper" pattern is present from repeated hemorrhages and hemosiderin deposition.



Sagittal T2WI MR shows hemorrhage into the conus from a cavernous malformation (white open arrow). Lesion shows heterogeneous signal from prior hemorrhage, with no mass effect or adjacent cord edema.