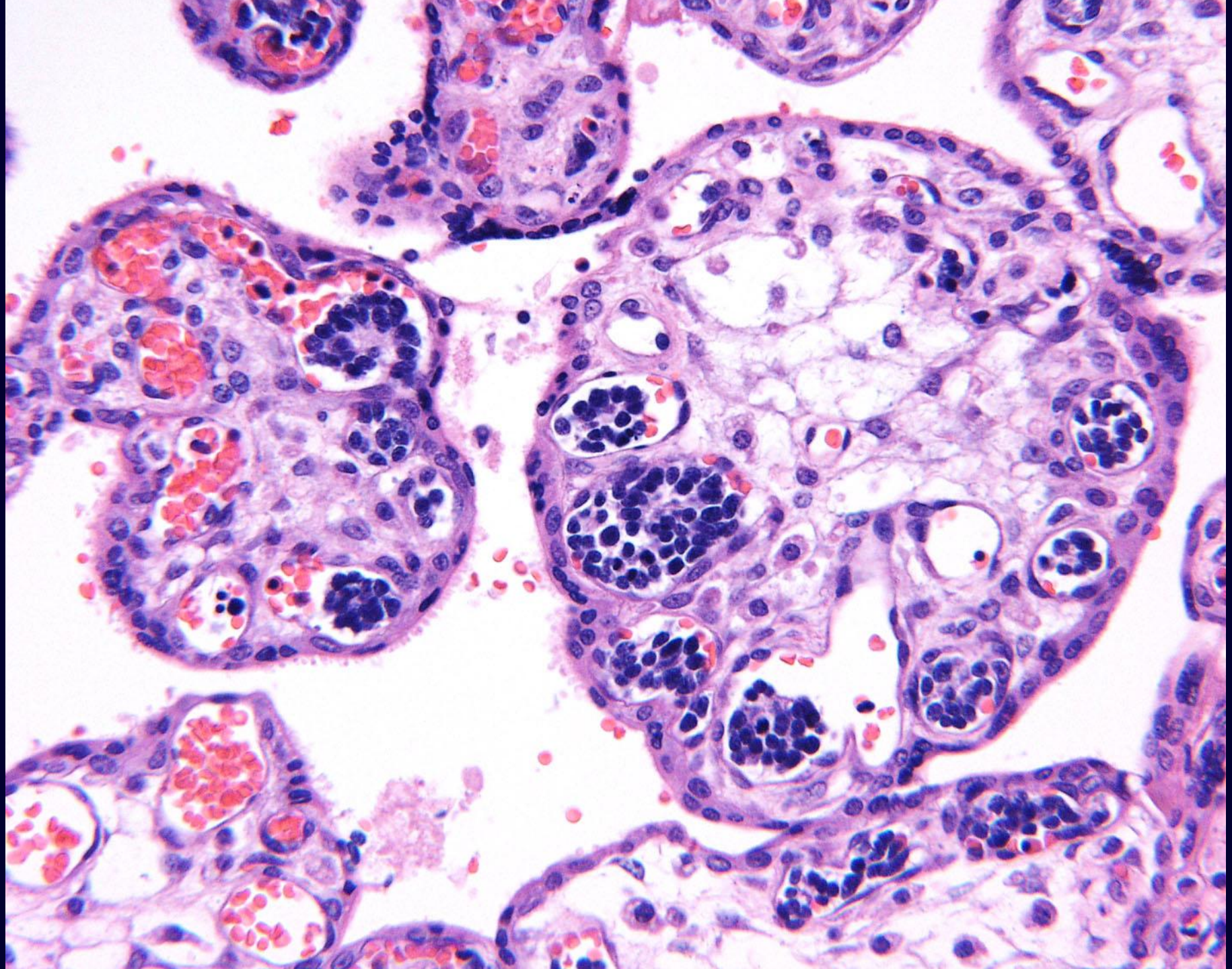
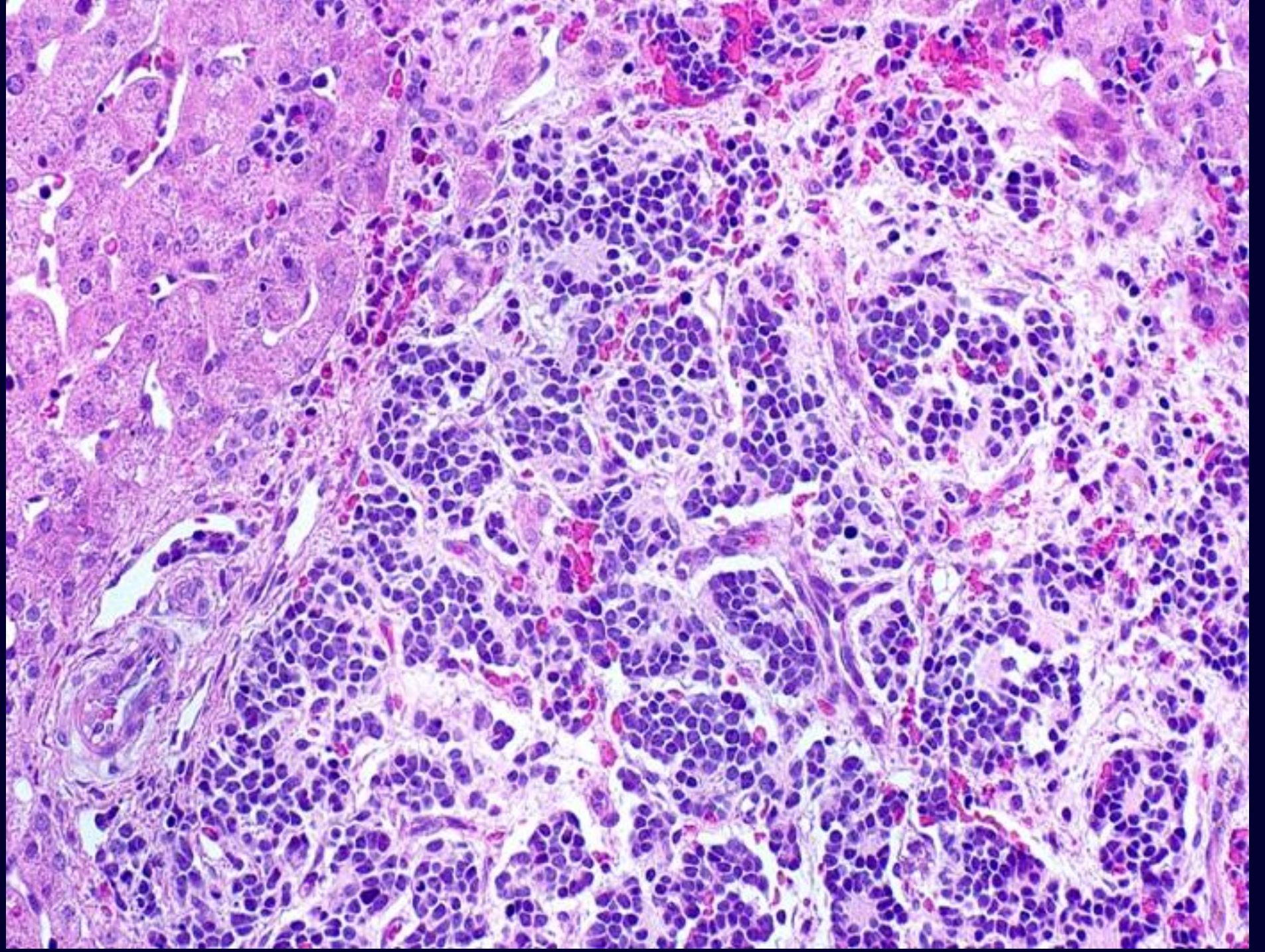
Case 1

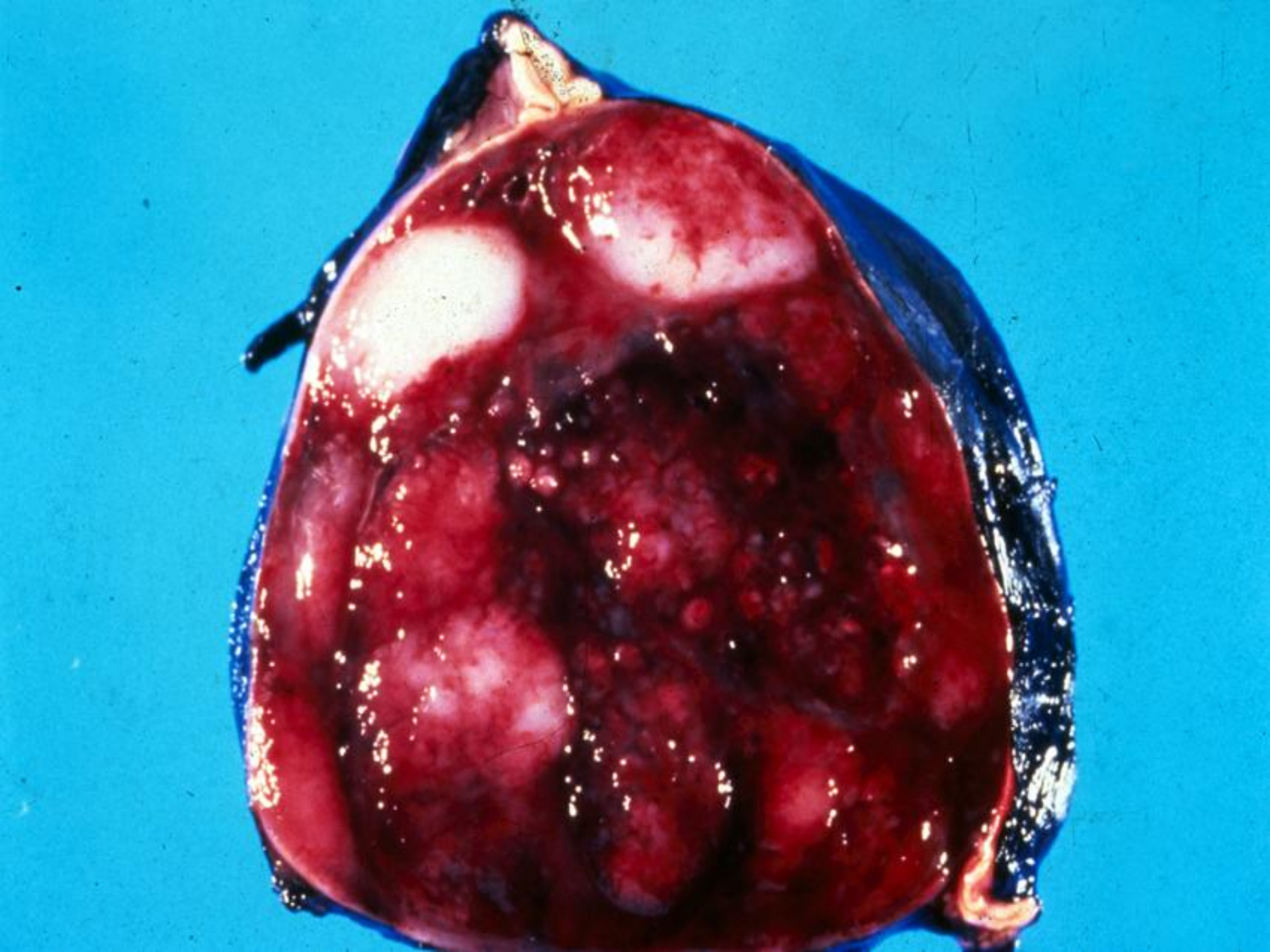
Newborn baby

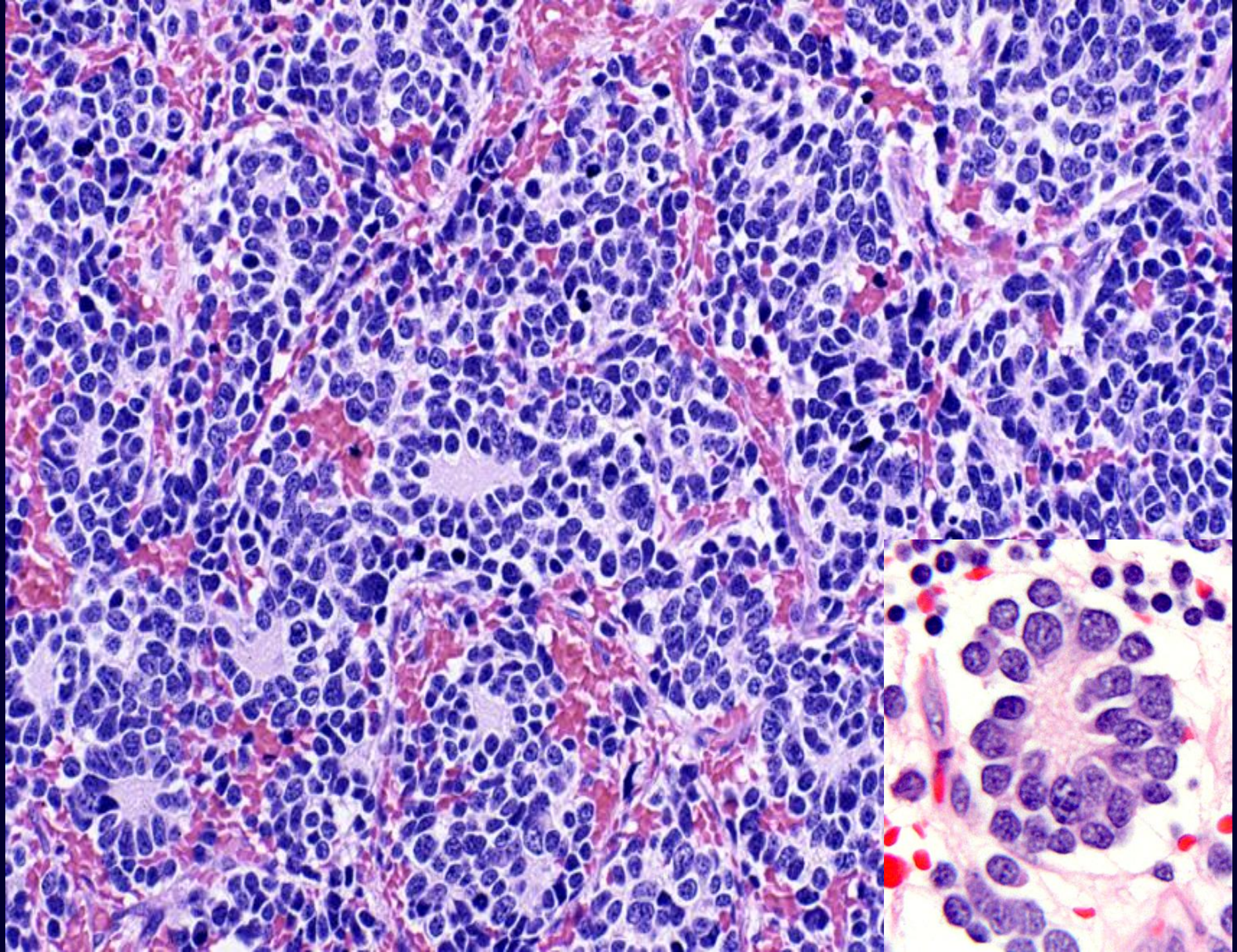
Hepatomegaly

Adrenal tumor









Stage 4S case

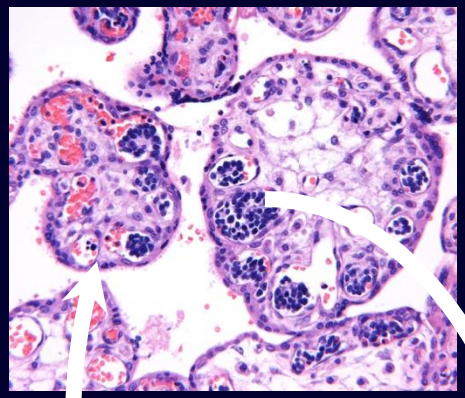
Age: < 1yr

Primary: Stage 1 or 2

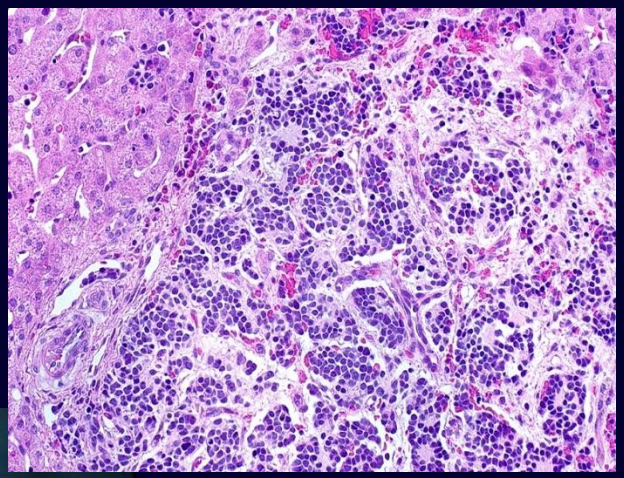
Metastasis to:

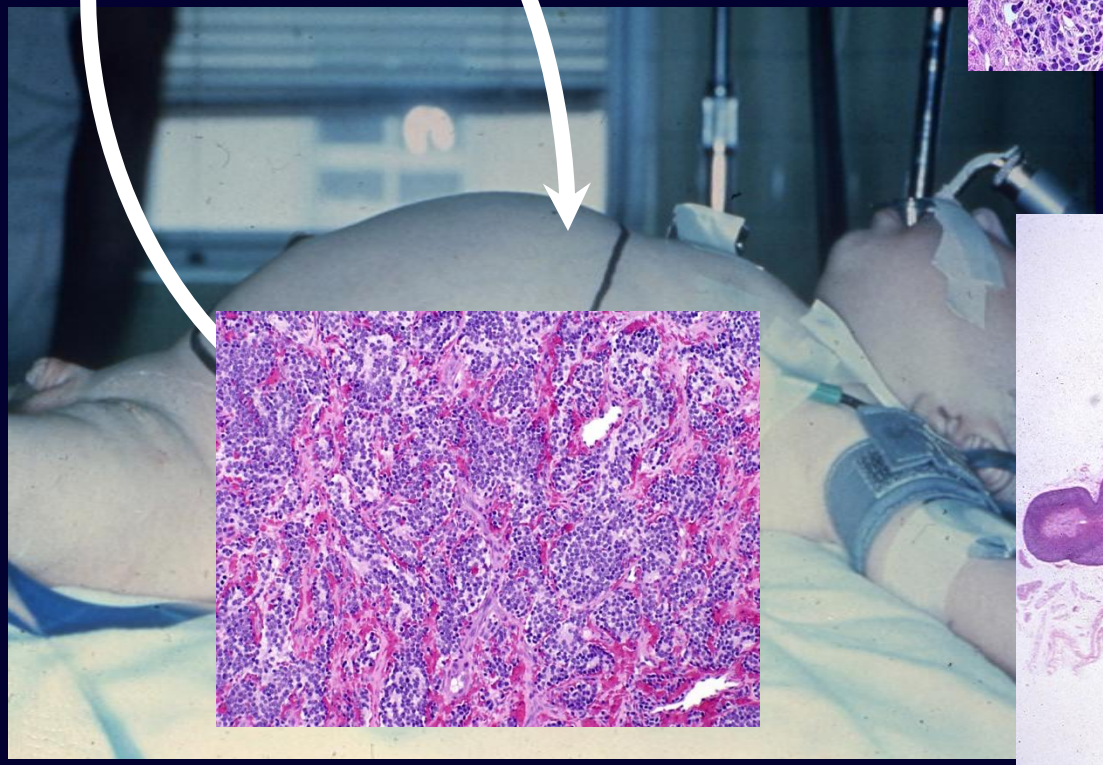
- **Liver, Skin, and/or BM (<10% of total nuclear cells) without Bone destruction**

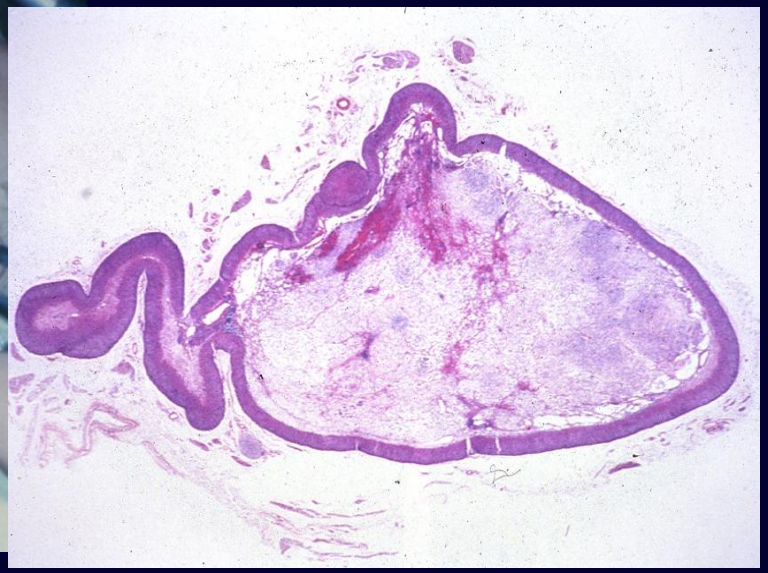
Stage 4S Neuroblastoma



Liver
BM
Skin







Case 2

1 year and 8 months of age

Opsoclonus-Myoclonus-Ataxia Syndrome

Adrenal tumor

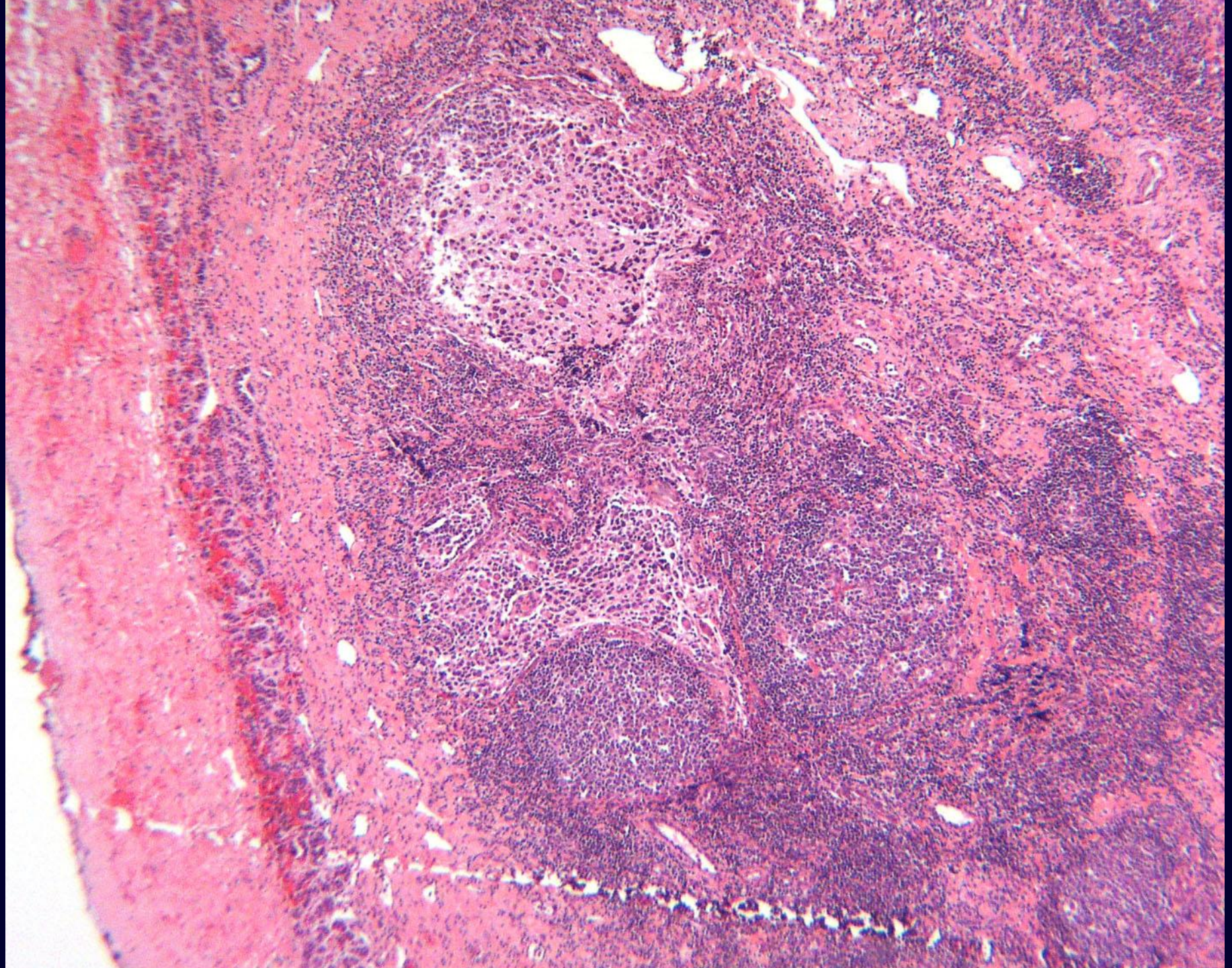
Opsoclonus-Myoclonus-Ataxia Syndrome

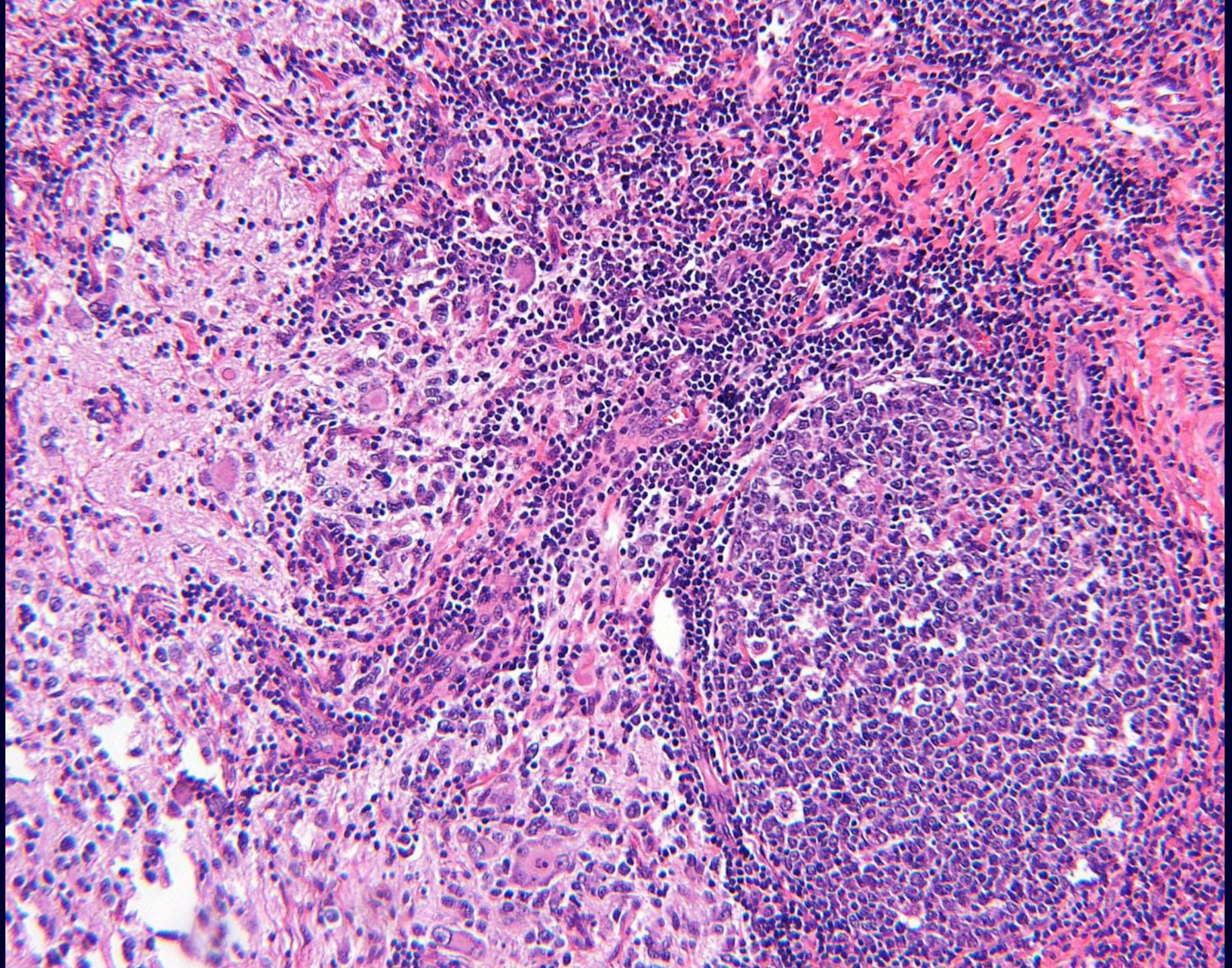
- **Defined by:**
  - **Slow or rapid onset of ataxia**
  - **Chaotic rapid eye movements (opsoclonus)**
  - **Polymyoclonus**

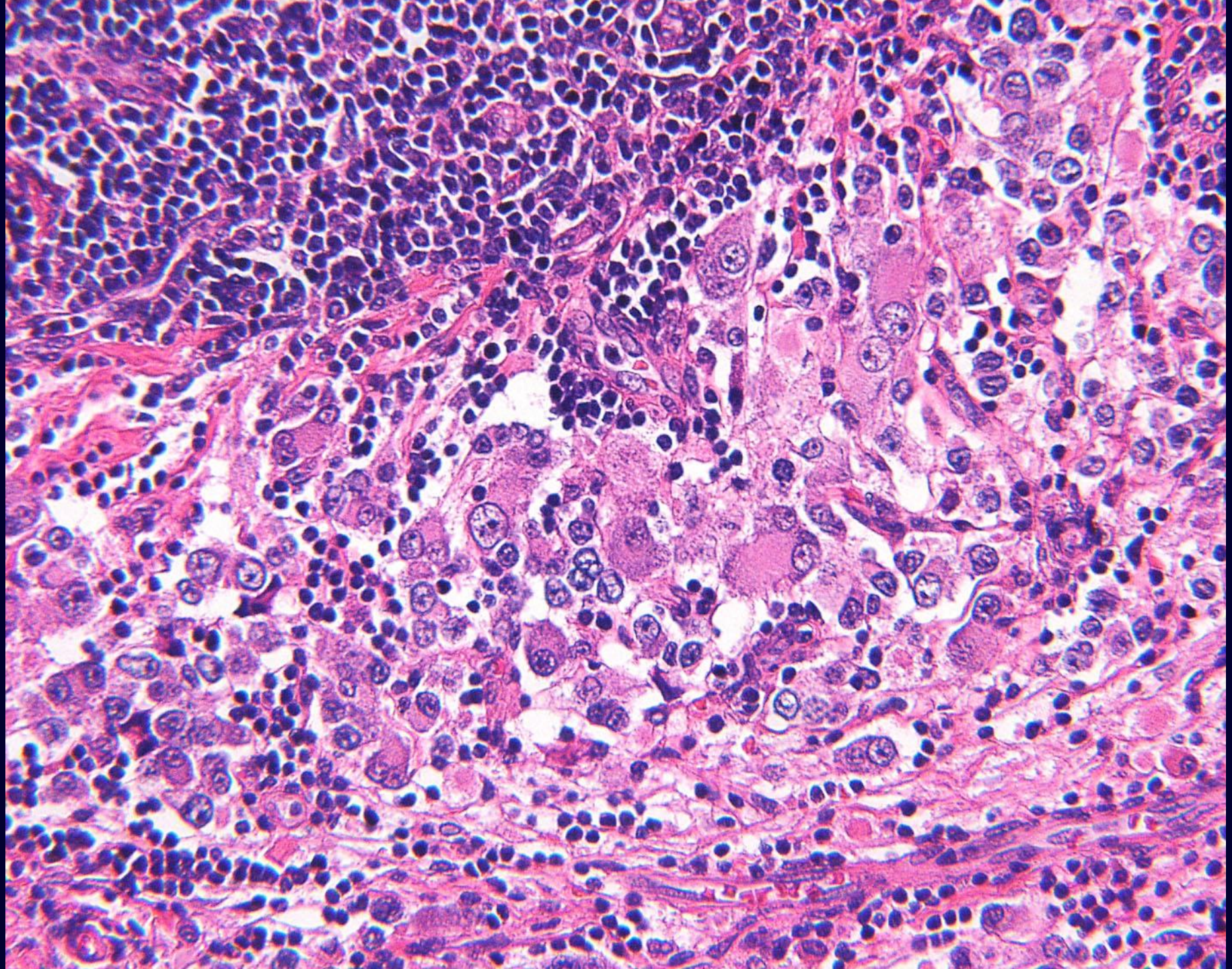
- **DDx: encephalitis, demyelinating syndromes, intoxications, idiopathic (50%!),**
  para-neoplastic syndrome associated with neural crest tumors

- **Seen in 2-3% of children with neuroblastoma**

- **70-80% have long-term neurologic deficits**







Neuroblastoma (Schwannian Stroma-poor) Differentiating Subtype

Extensive Lymphocytic Infiltration with Follicular Formation

Syndromes associated with Neuroblastoma

- **Pepper Syndrome:**
  - **Massive Hepatic Involvement**
- **Hutchinson's Syndrome"** Histology group and
  - **Skull and Other Bone Metastasis**
- **Horner's Syndrome**
  - **Unilateral Ptosis, Myosis, and Anhidrosis**
- **Opsoclonus-Myoclonus-Ataxia Syndrome**
  - **Antineuronal Antibodies**
- **Kerner-Morrison Syndrome**
  - **Intractable Diarrhea due to VIP secretion**
- **Neurocristopathy Syndrome**
  - **Congenital Central Hypoventilation (Ondine's Curse)**
  - **Hirschsprung's disease**