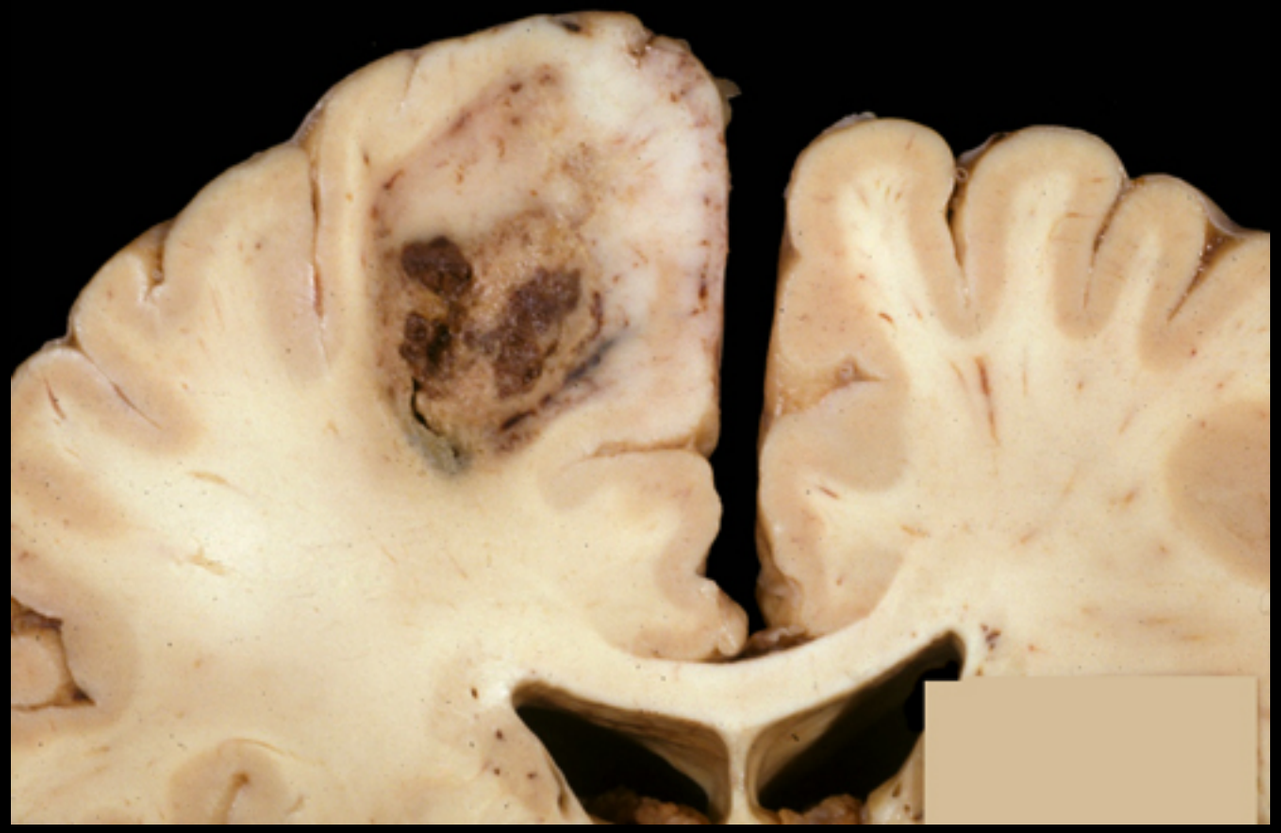
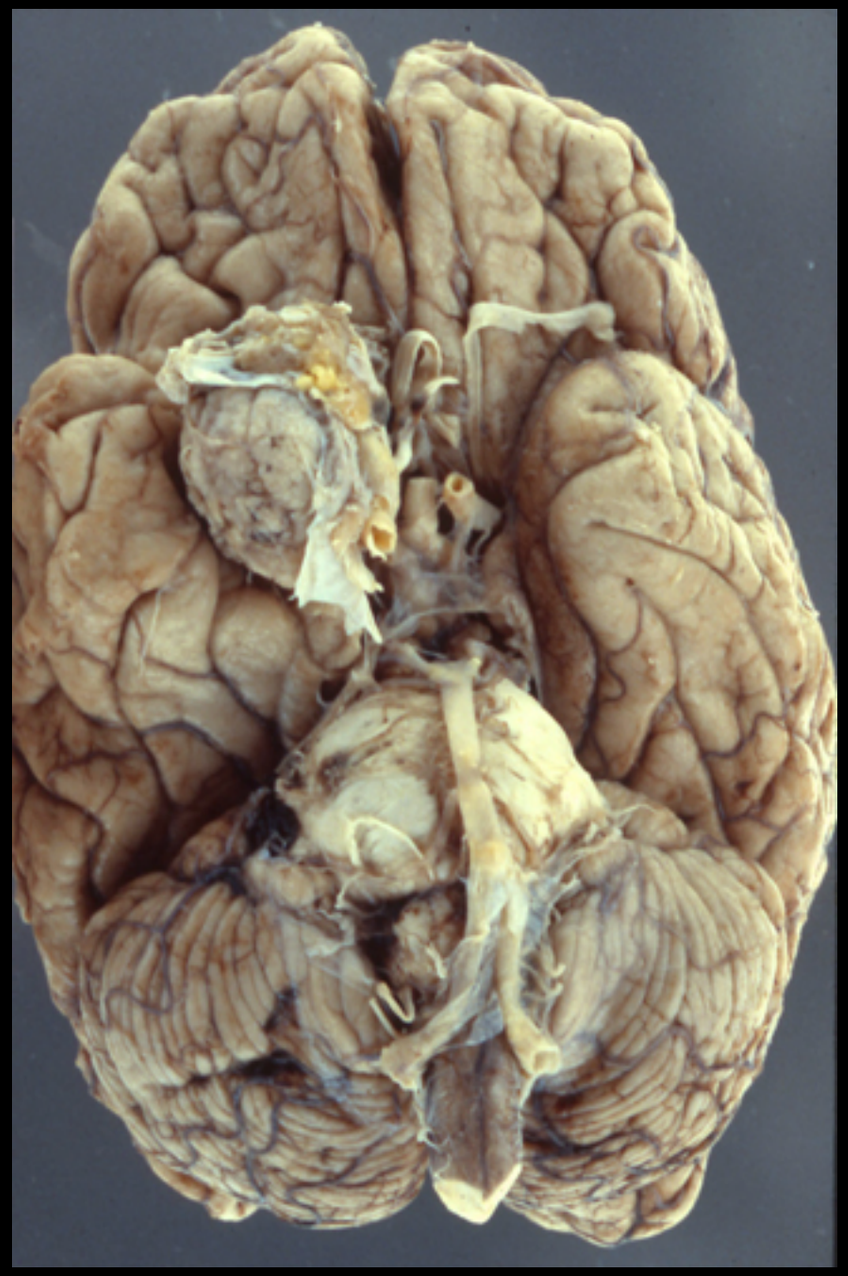
TUMORES DEL SNC

DRA. MONICA CARRERA

TUMORES DE CEL NEUROGLIALES	CELULAS GLIALES	CEL EPENDIMARIAS	PLEXOS COROIDES	T. NEURONALES
TUMORES EMBRIONARIOS	MEDULOBLASTOMA	T. TERATOIDE		
TUMORES CRANEALES Y NERVIOS ESPINALES	SCHWANNOMA	NEUROFIBROMA	TMVNP	
TUMORES MENINGEOS	MENINGIOMA			
TUMORS MESENQUIMATOSO	HEMANGIOBLASTOMA	T. FIBROSO SOLITARIO	SARCOMA	
TUMORES DE CEL GERMINALES	GERMINOMA	DA EMBRIONARIO	SENOS ENDODERMICOS	TERATOMA
TUMORES METASTÁSICOS	PULMON	MAMA	MELANOMA	RENAL
T. REGION SELLAR	CRANEOFARINGIOMA			
LINFOMAS	CÉLULAS GRANDES B INMUNOCOMPETENTES			

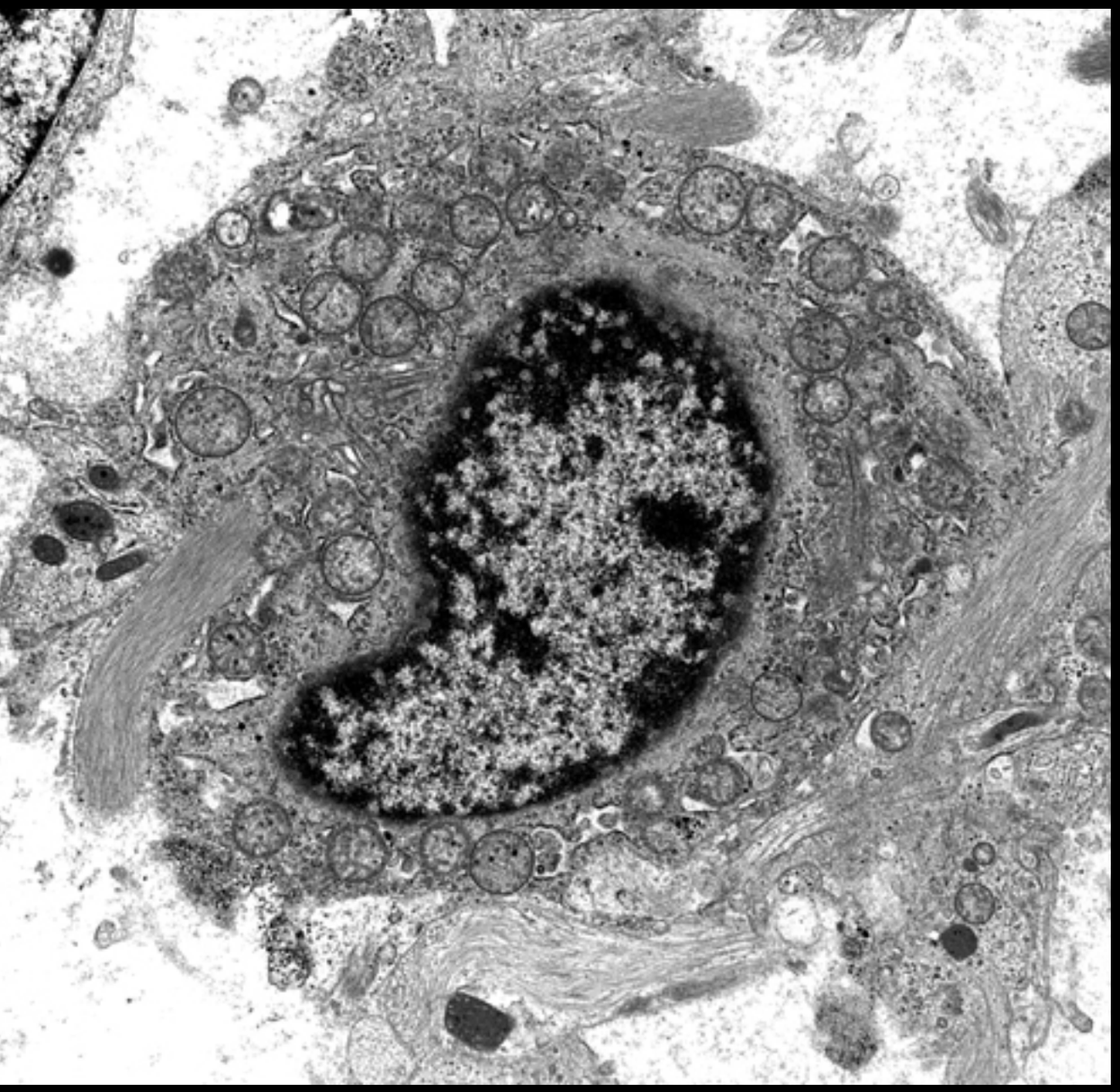


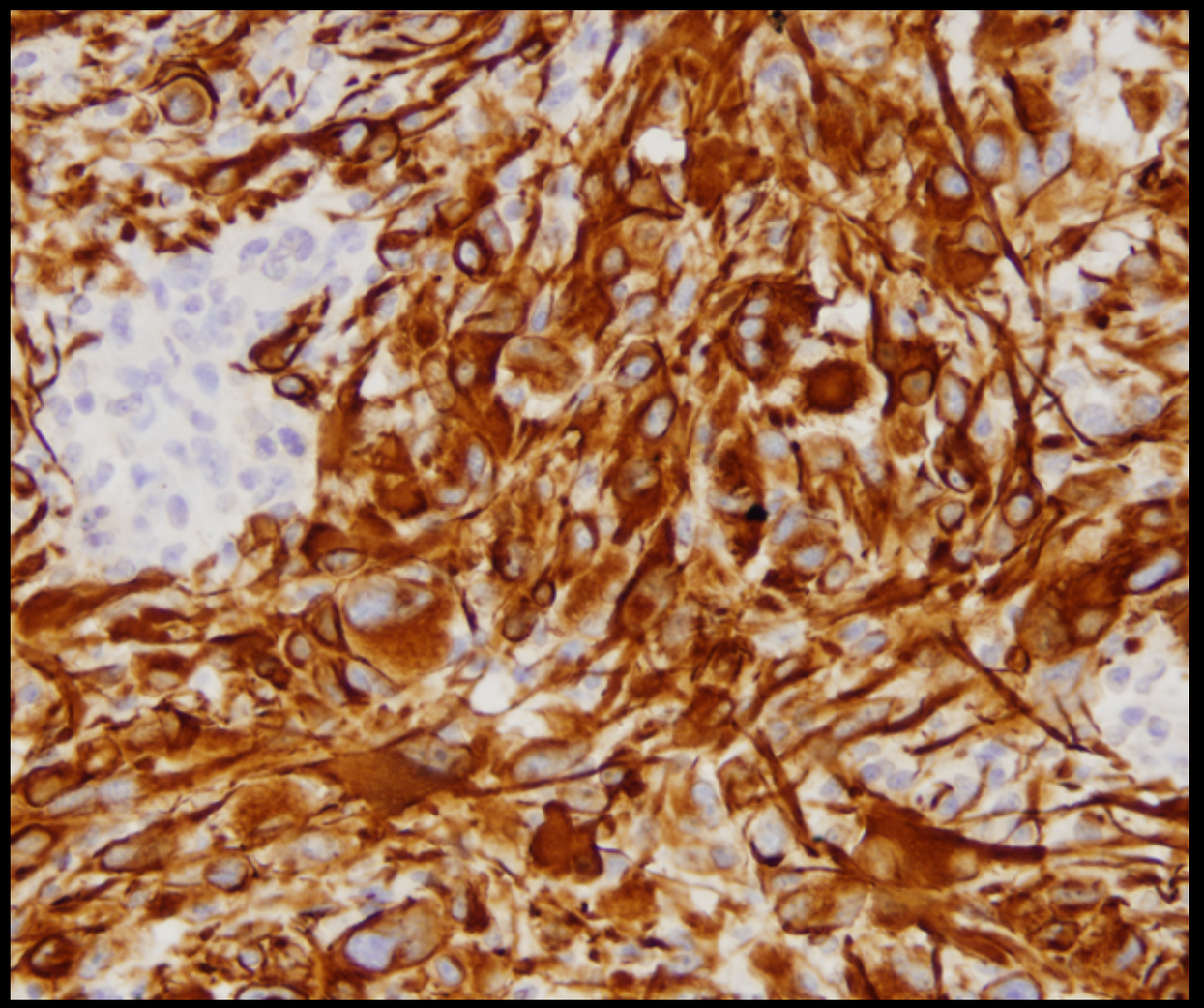


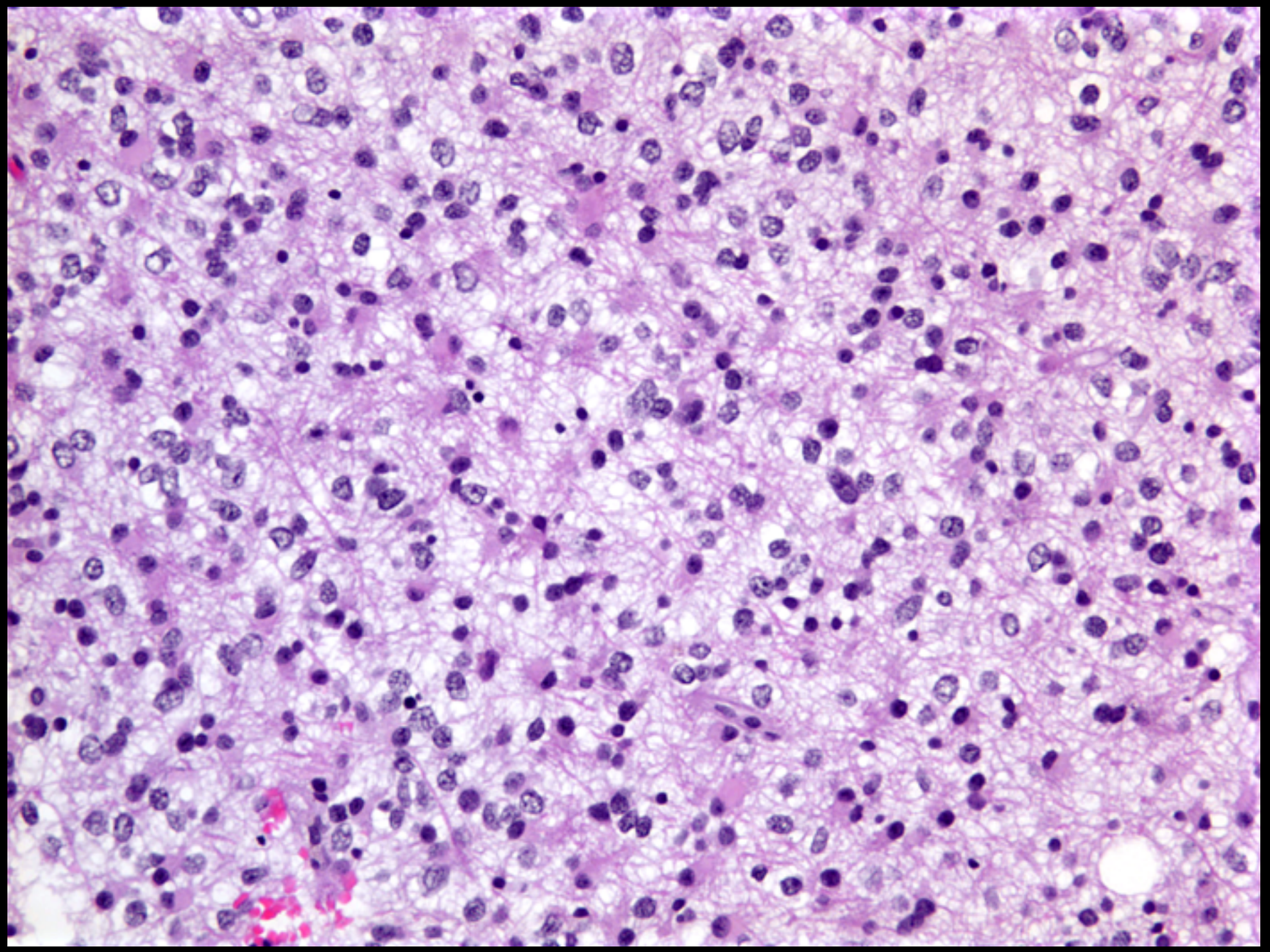
SYNDROME	GENE/LOCUS	NS TUMORS	OTHER TUMORS
NF1	*NF1*/17q	Plexiform neurofibroma, MPNST, optic and other gliomas	Pheochromocytoma, GIST
NF2	*NF2*/22q	Vestibular and PN shwannoma, meningioma, other brain tumors	NA
TS	*TSC1*/9q, *TSC2*/16p	SEGA	Renal AMLs, lung LAM, cardiac rhabdomyoma
VHL	*VHL*/3p	Hemangioblastoma	Renal cell carcinoma, pheochromocytoma
Li-Fraumeni	*TP53*/17p	Astrocytoma	Breast carcinoma, bone and soft tissue sarcoma
Turcot	*FAP*/5q	Medulloblastoma, GBM	GI polyps, colorectal cancer
Gorlin	*PTCH*/9q	Desmoplastic medulloblastoma	Nevoid basal cell carcinoma, Odontogenic keratocysts

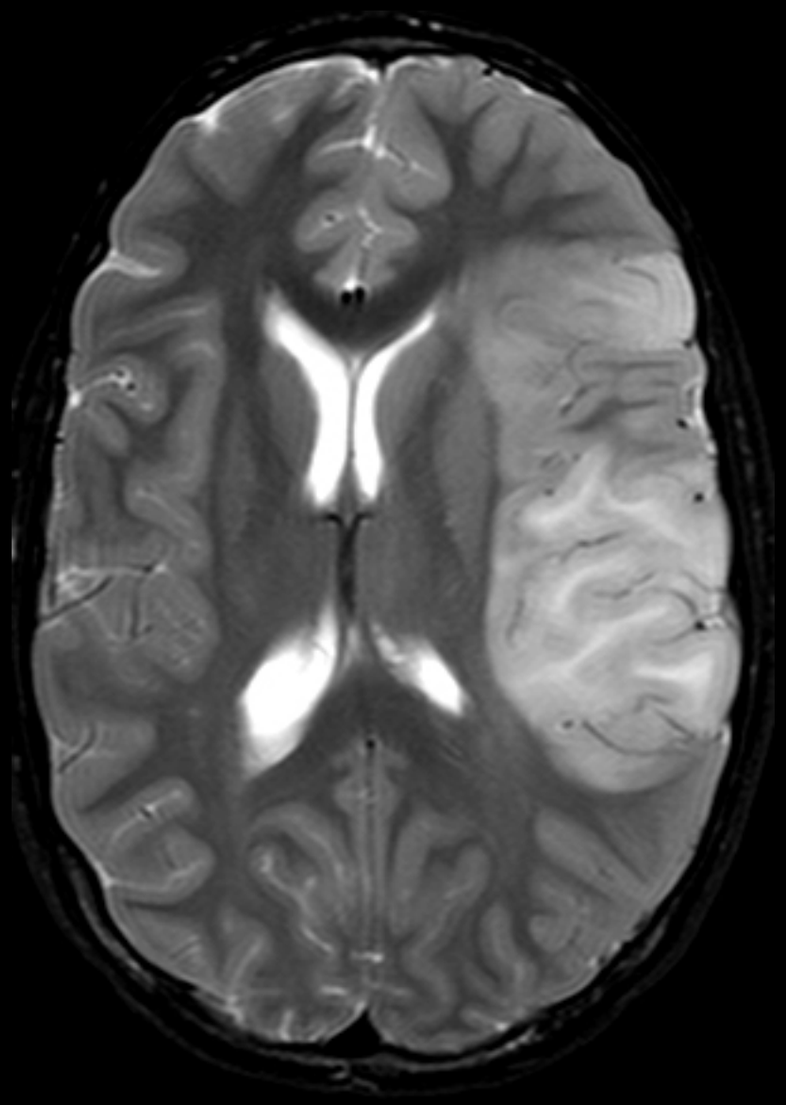
WHO GRADING SYSTEM

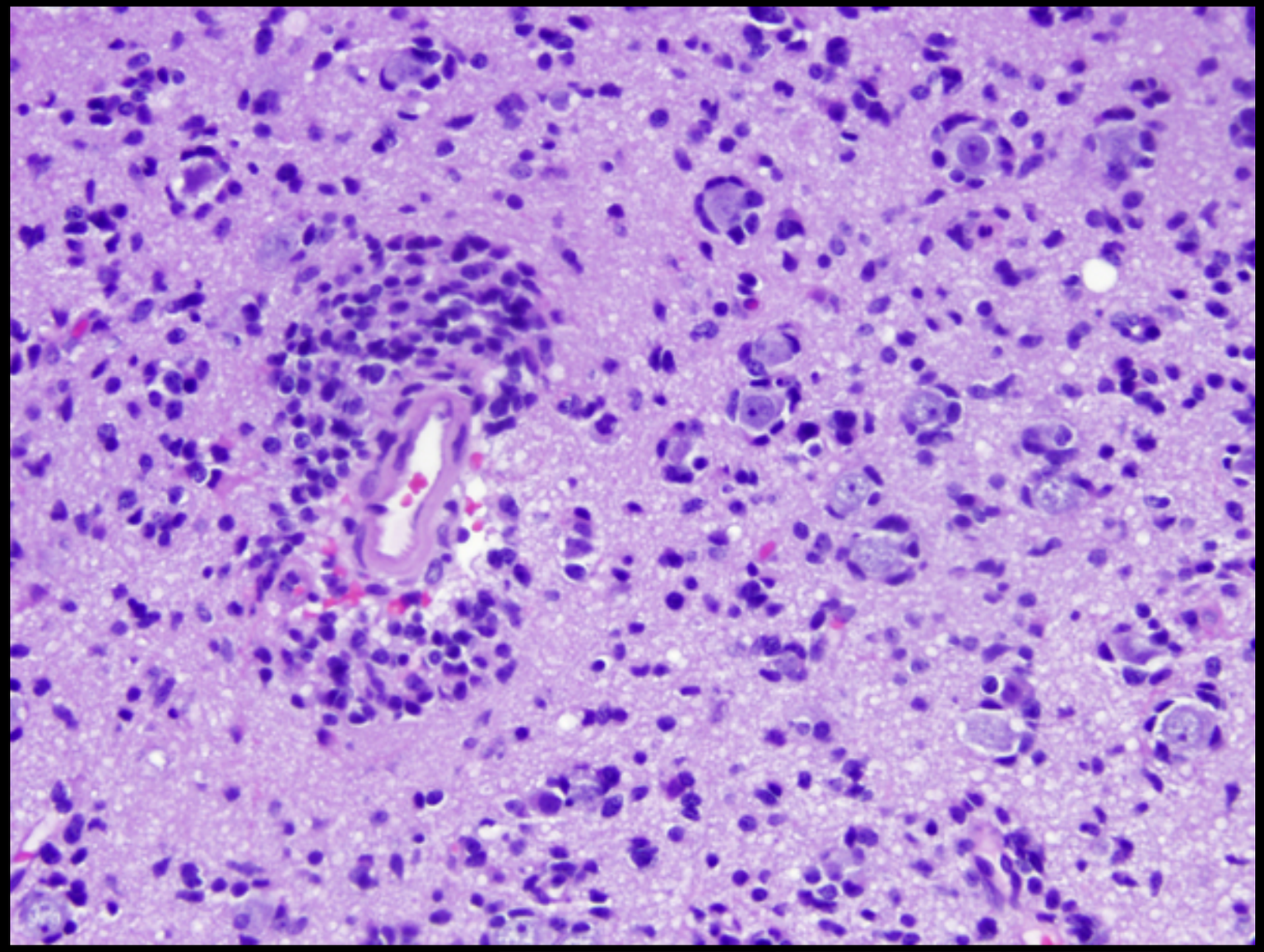
Grade I-Pilocytic astrocytoma	Benign cytological features-see below
Grade II-Diffuse astrocytoma	Moderate cellularity-no anaplasia or mitotic activity
Grade III- Anaplastic astrocytoma	Cellularity, anaplasia, mitoses
Grade IV-Glioblastoma	Same as Grade III plus microvascular proliferation and necrosis

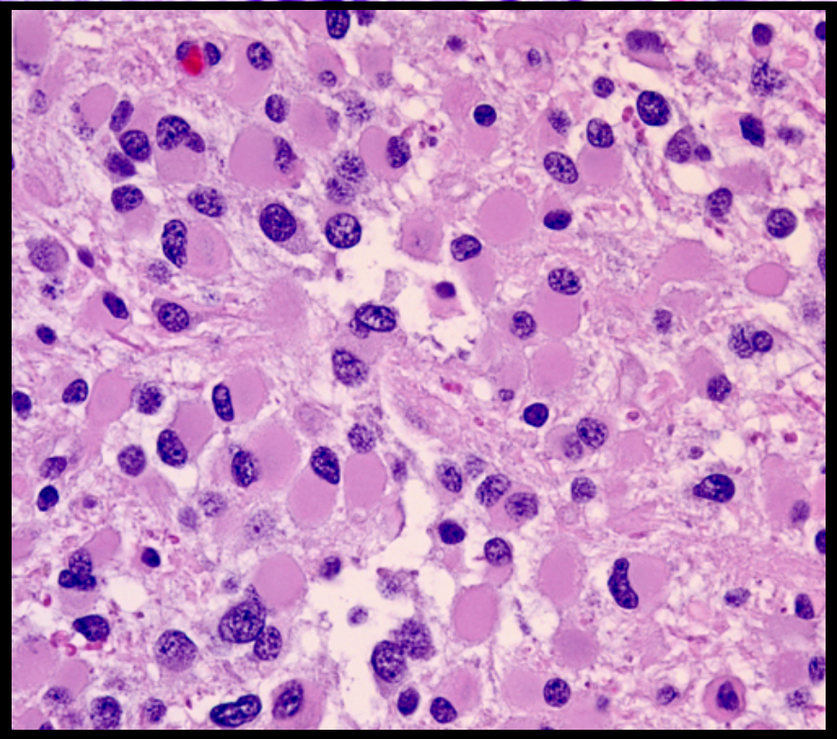


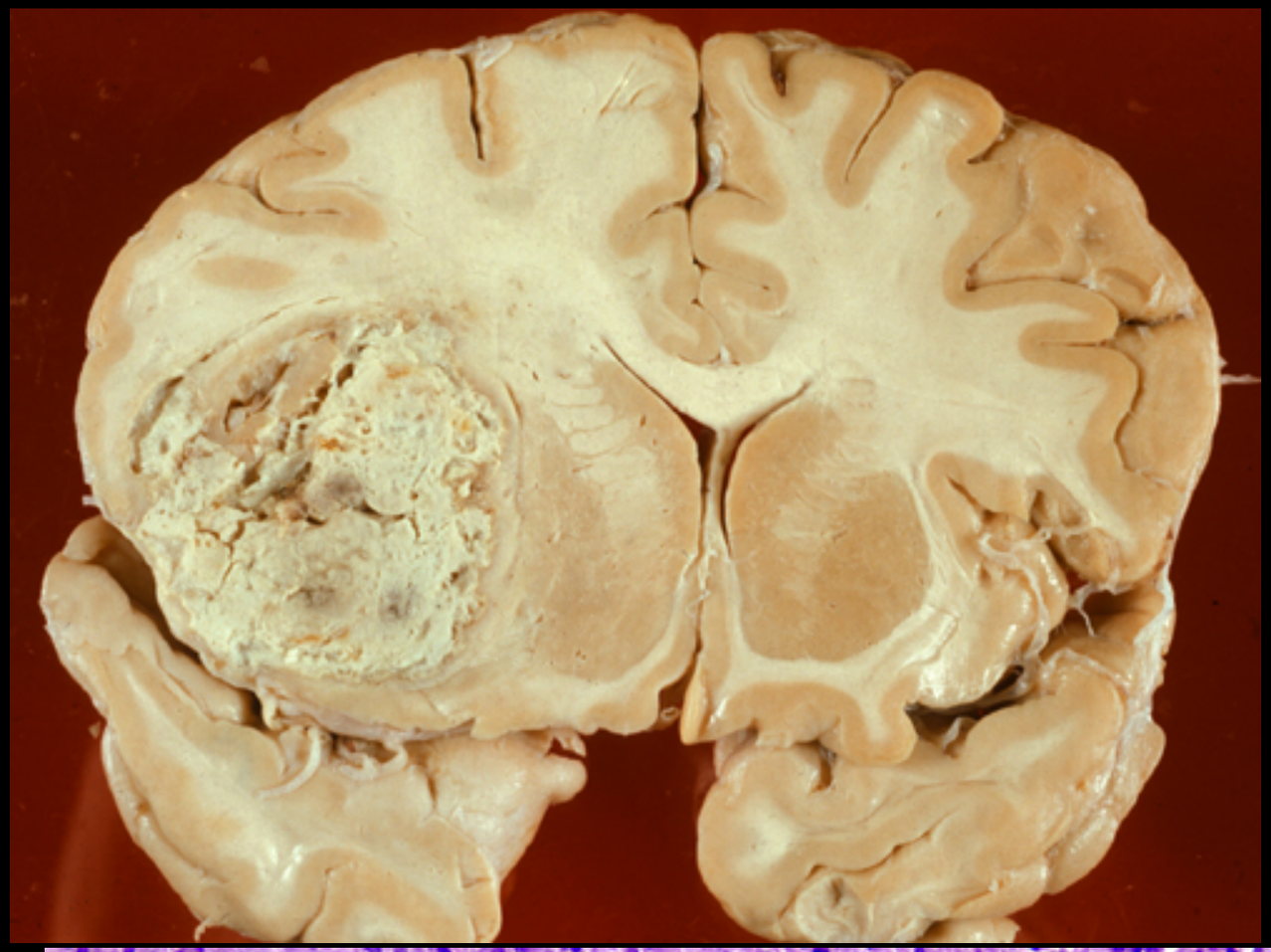


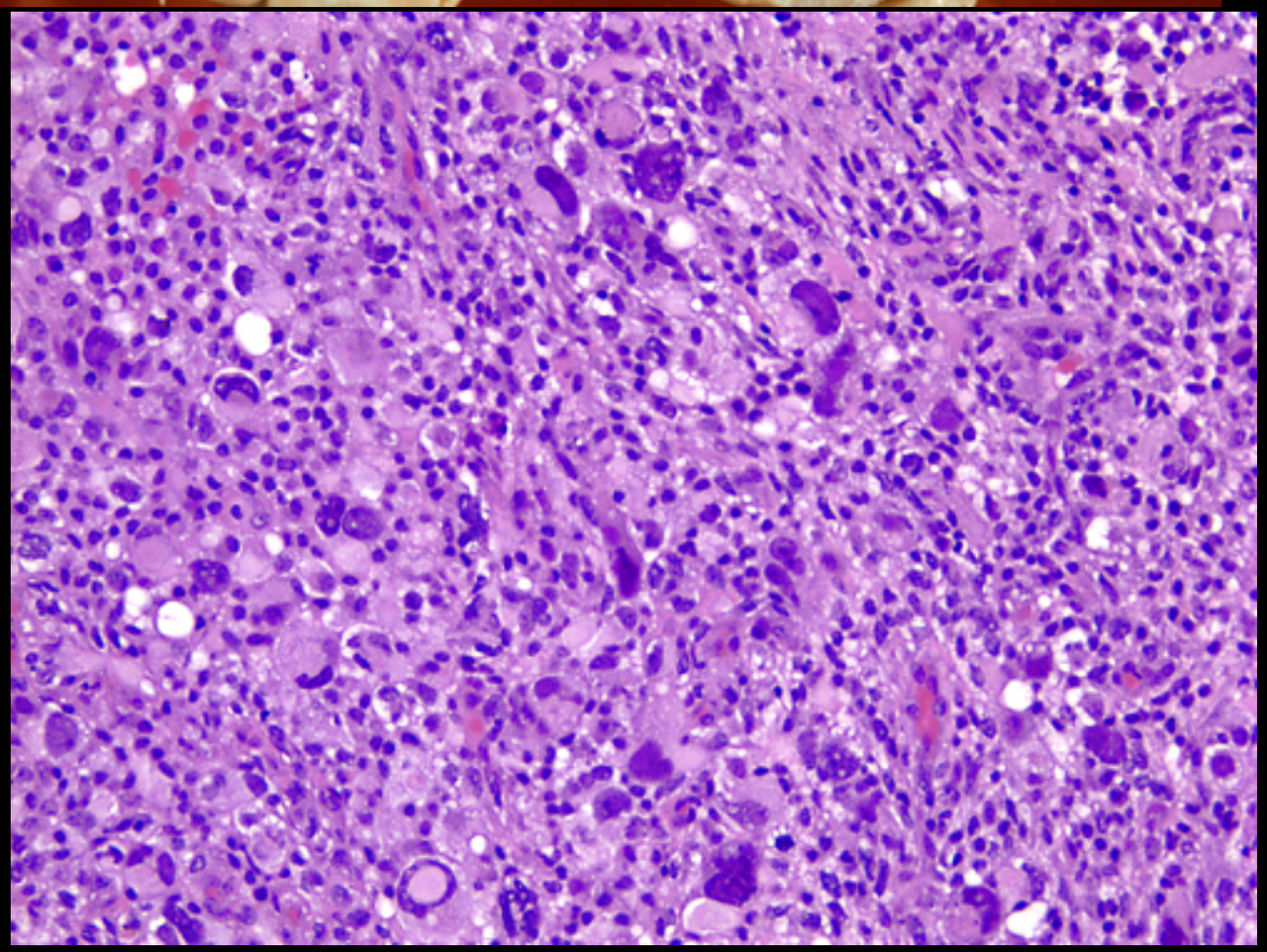


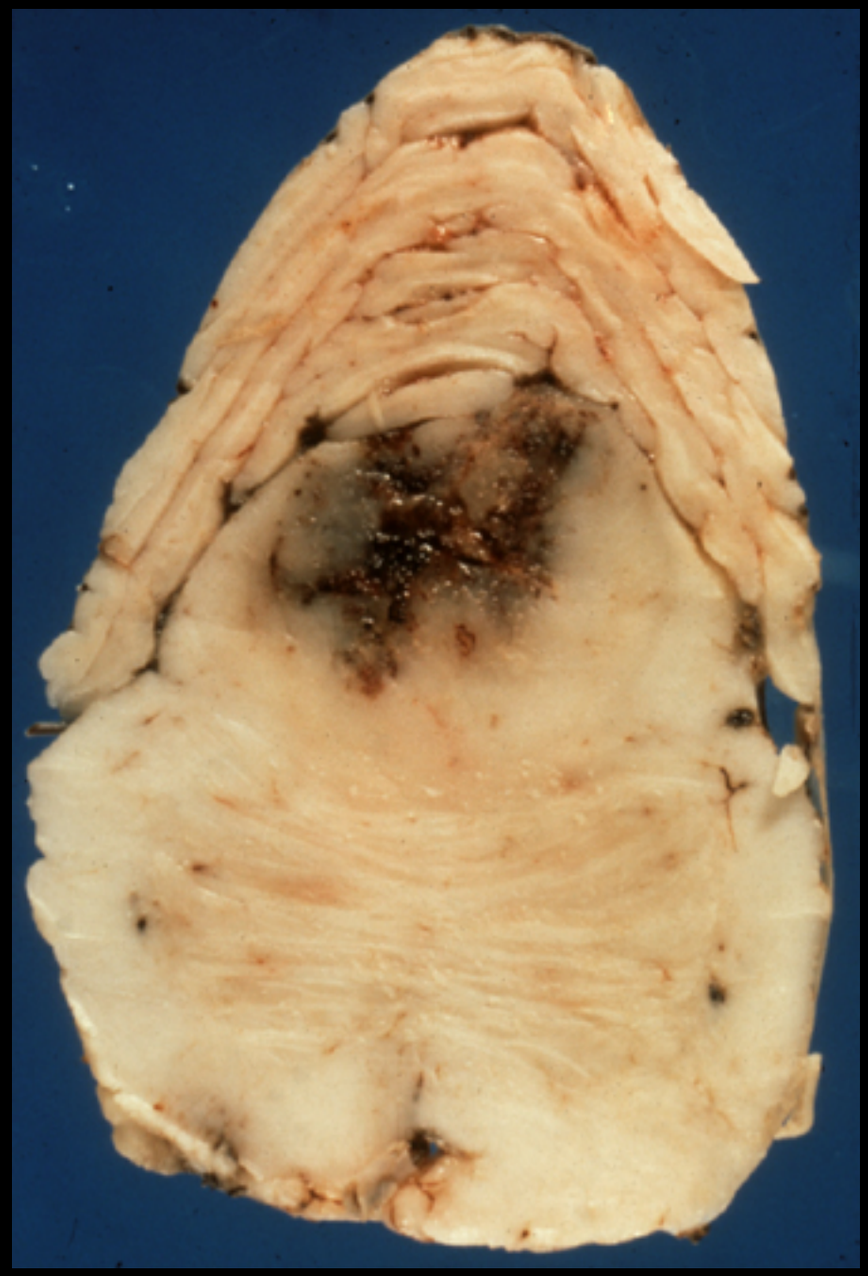


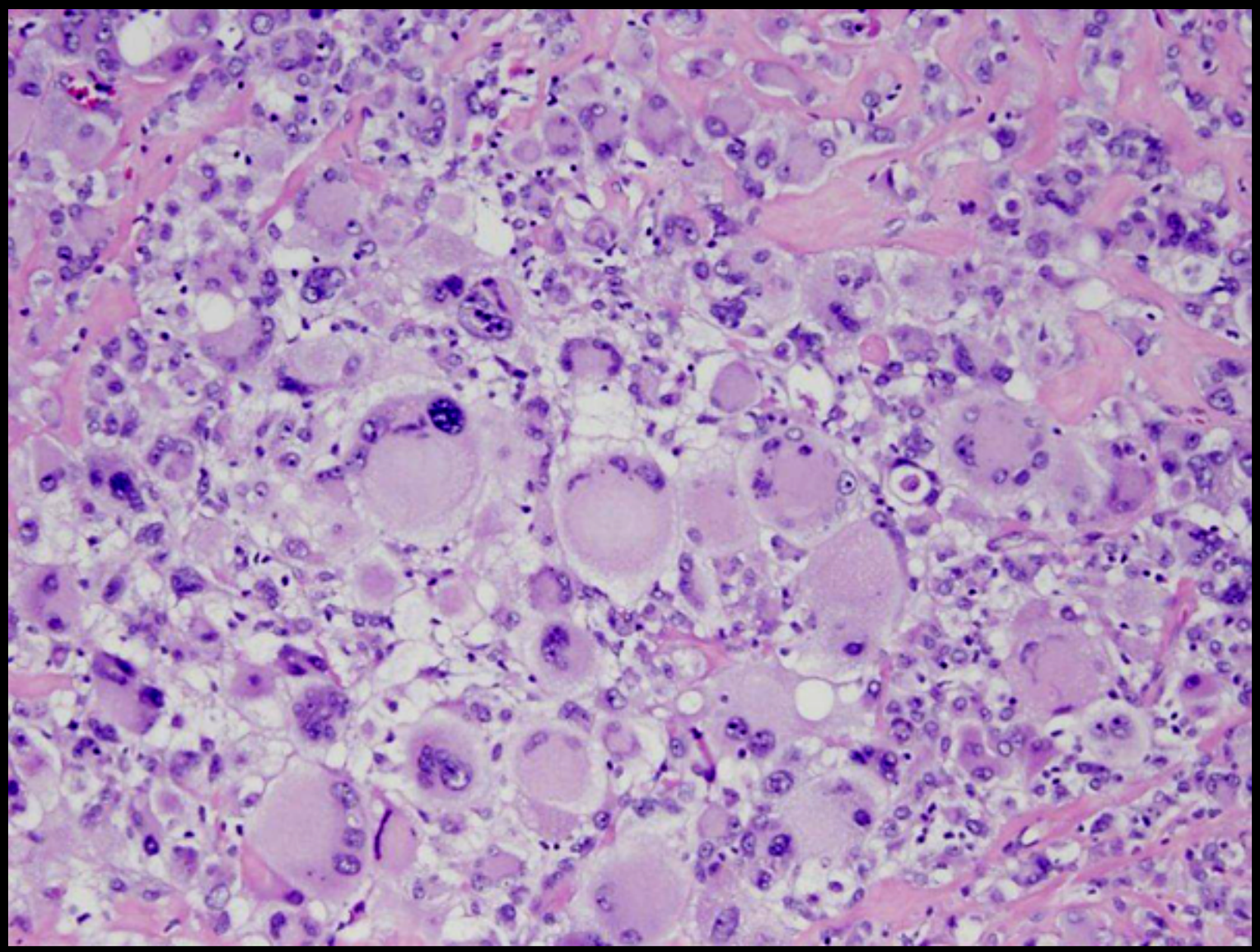


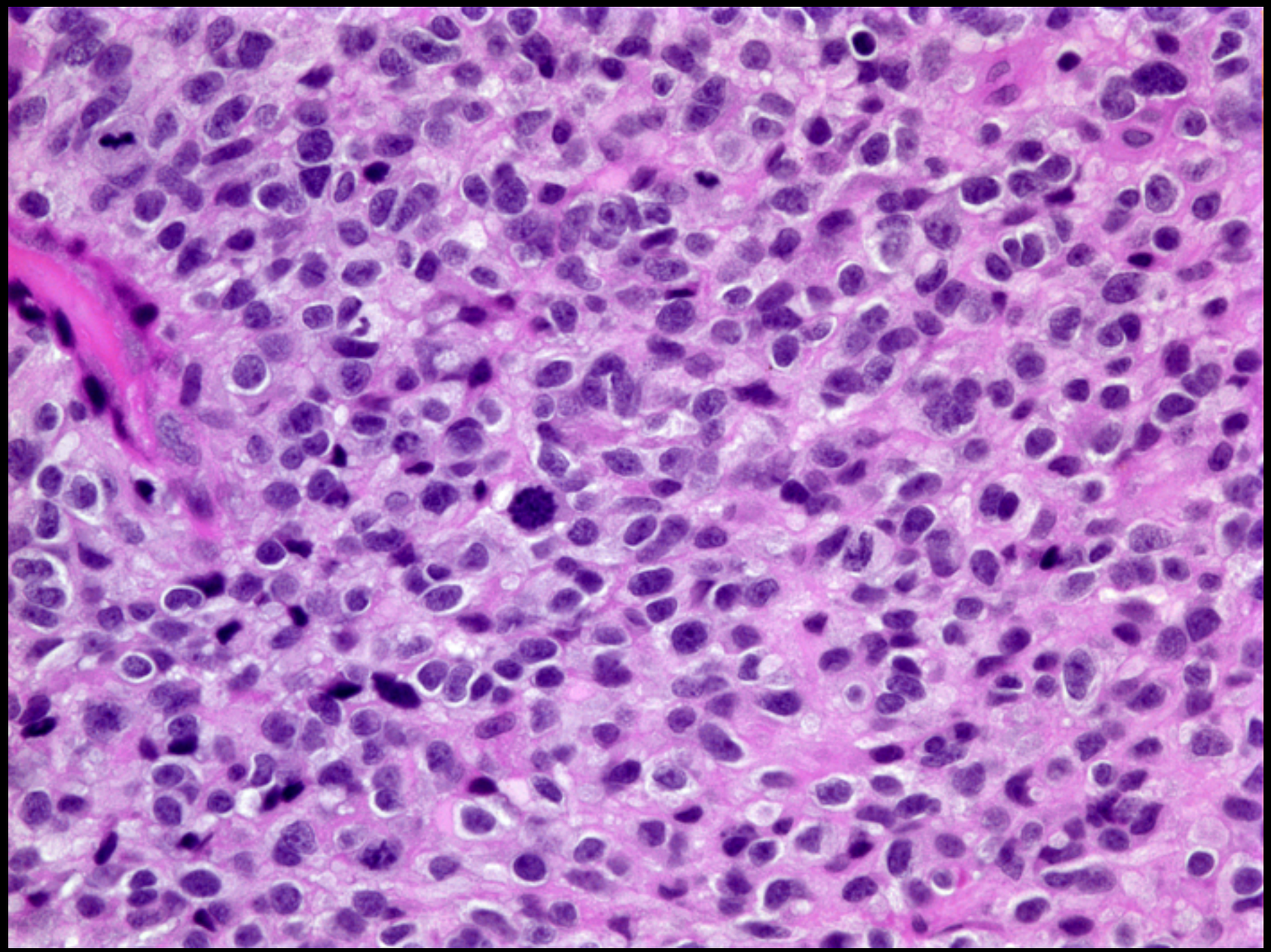


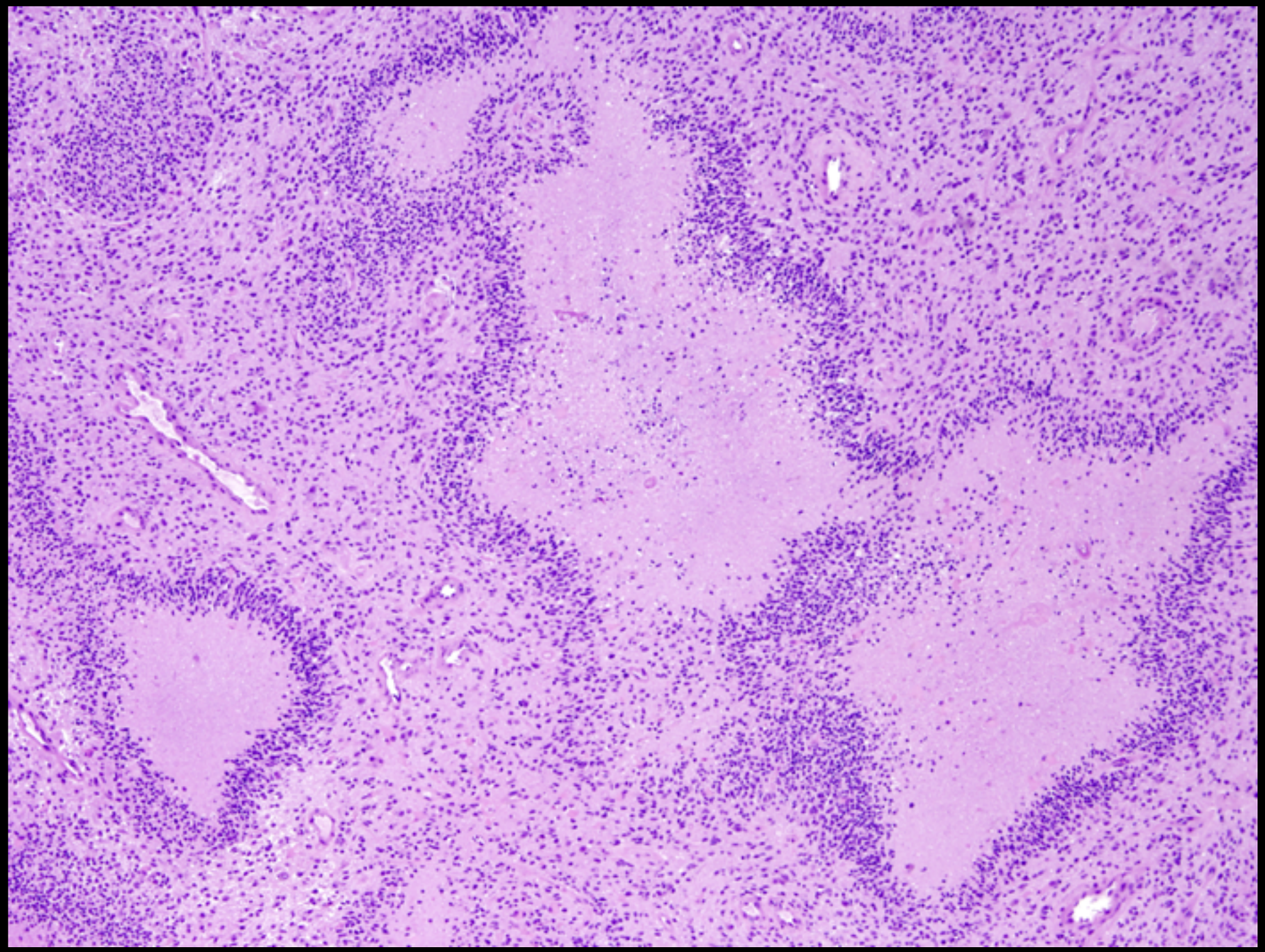


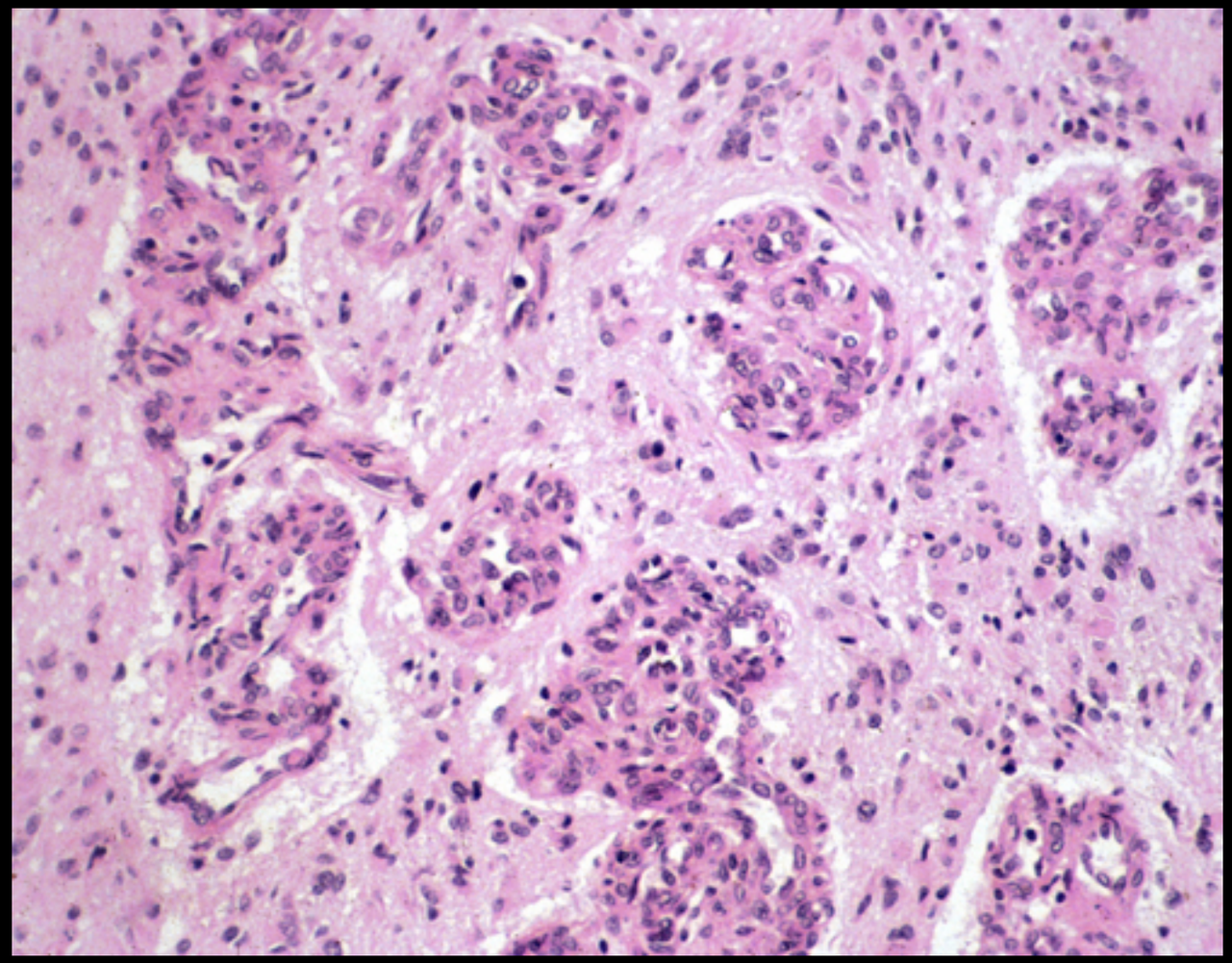


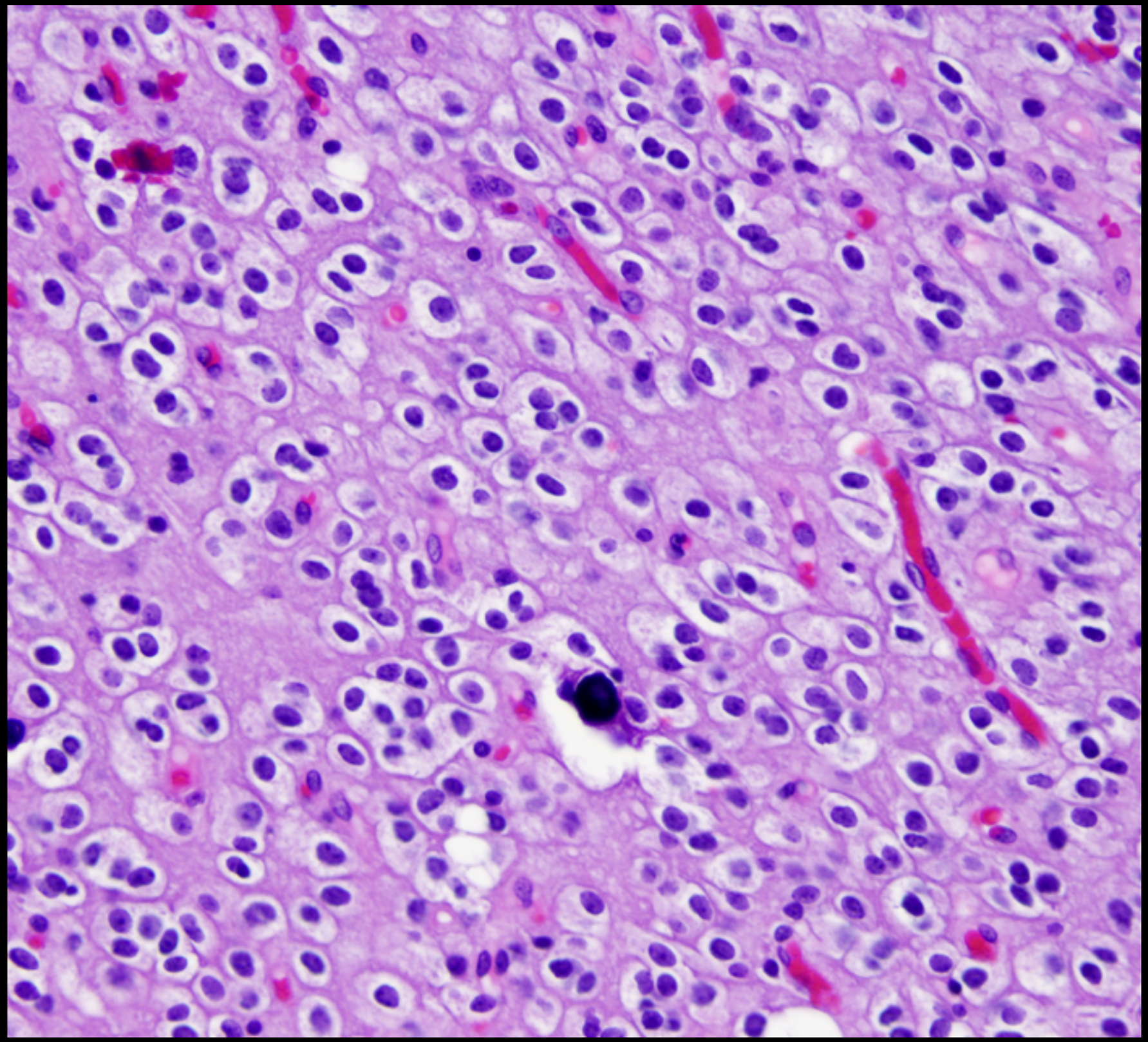


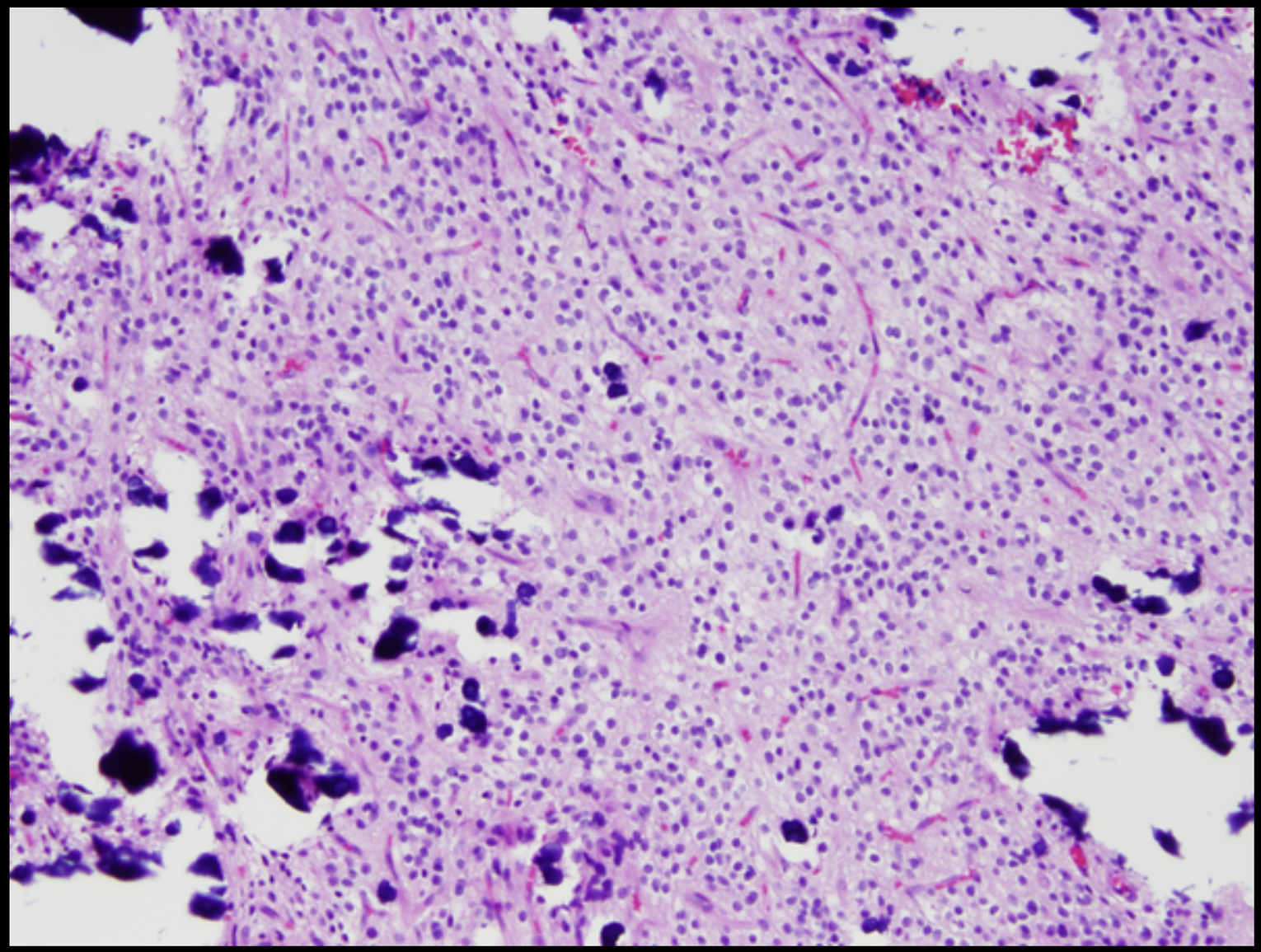


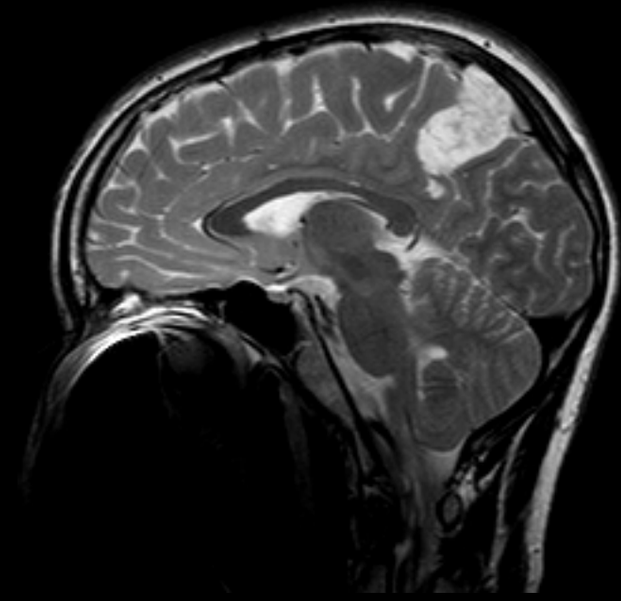


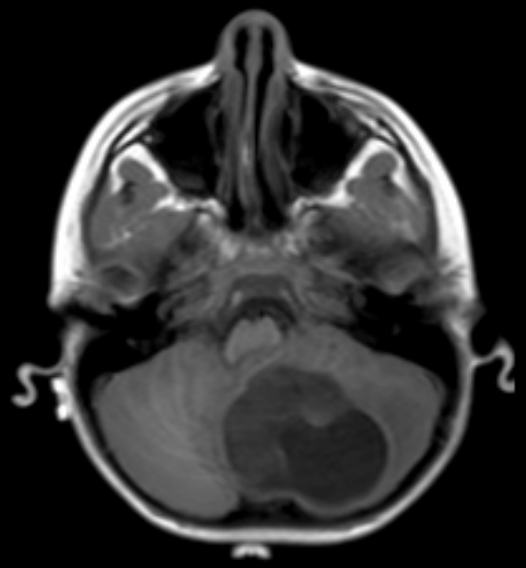


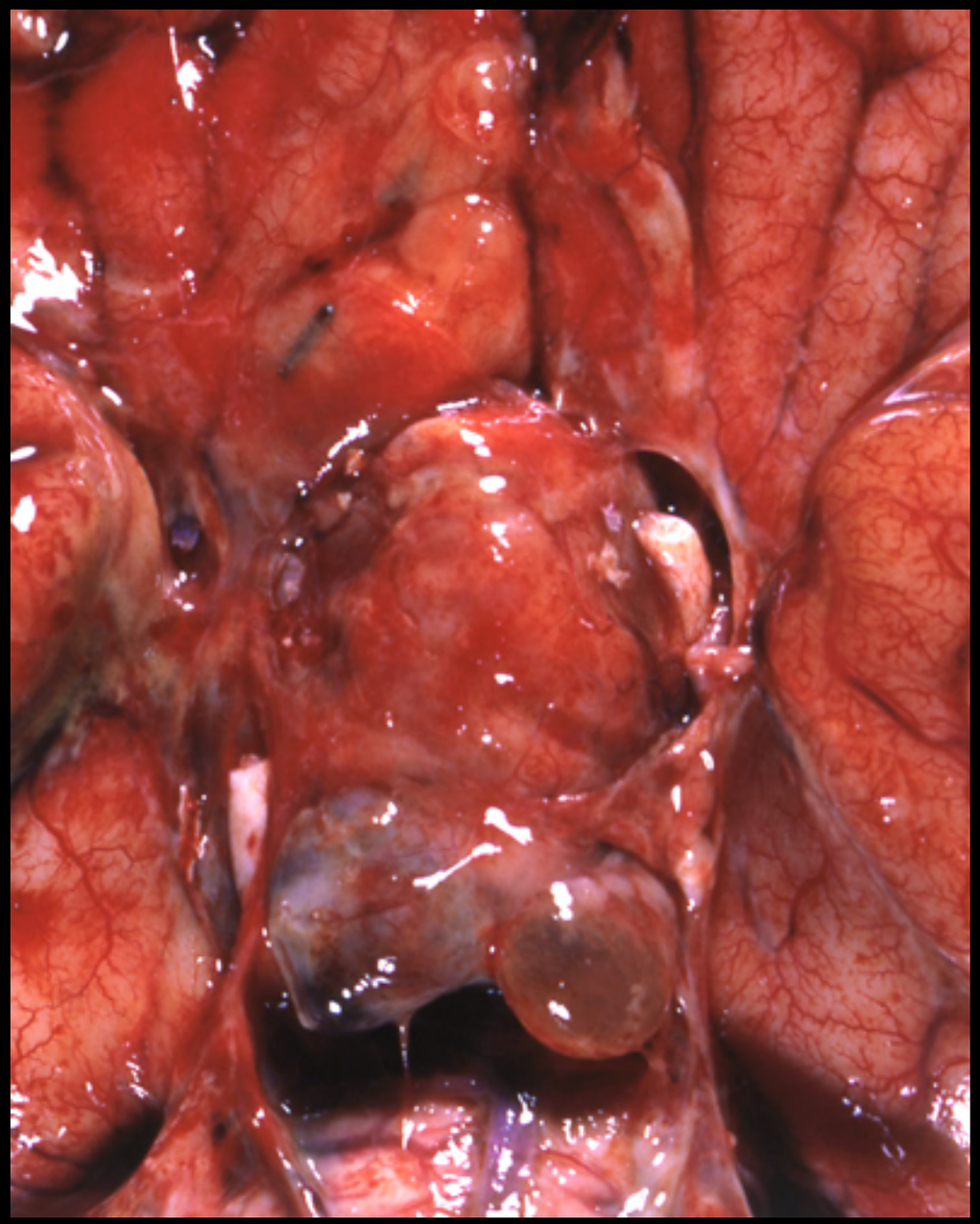


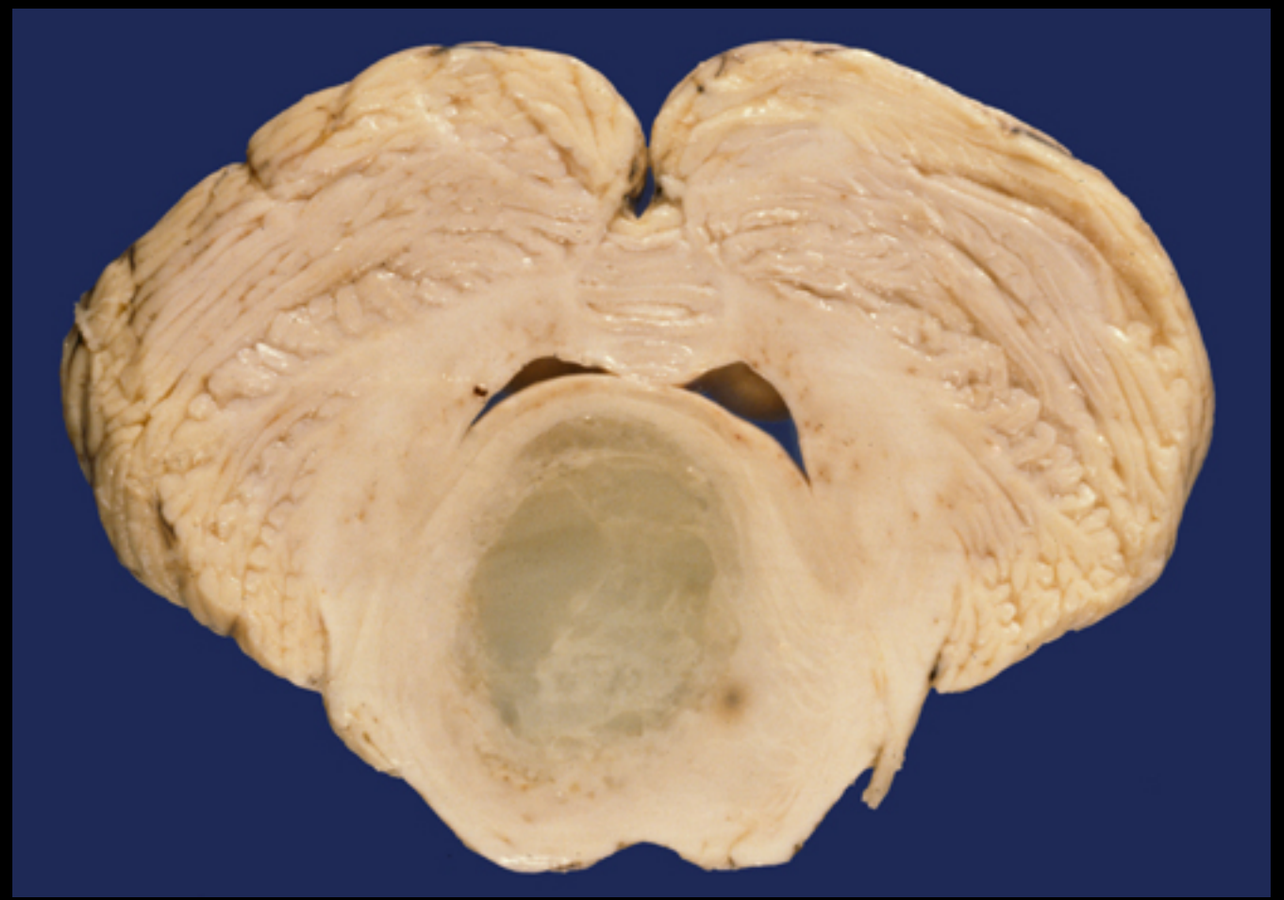


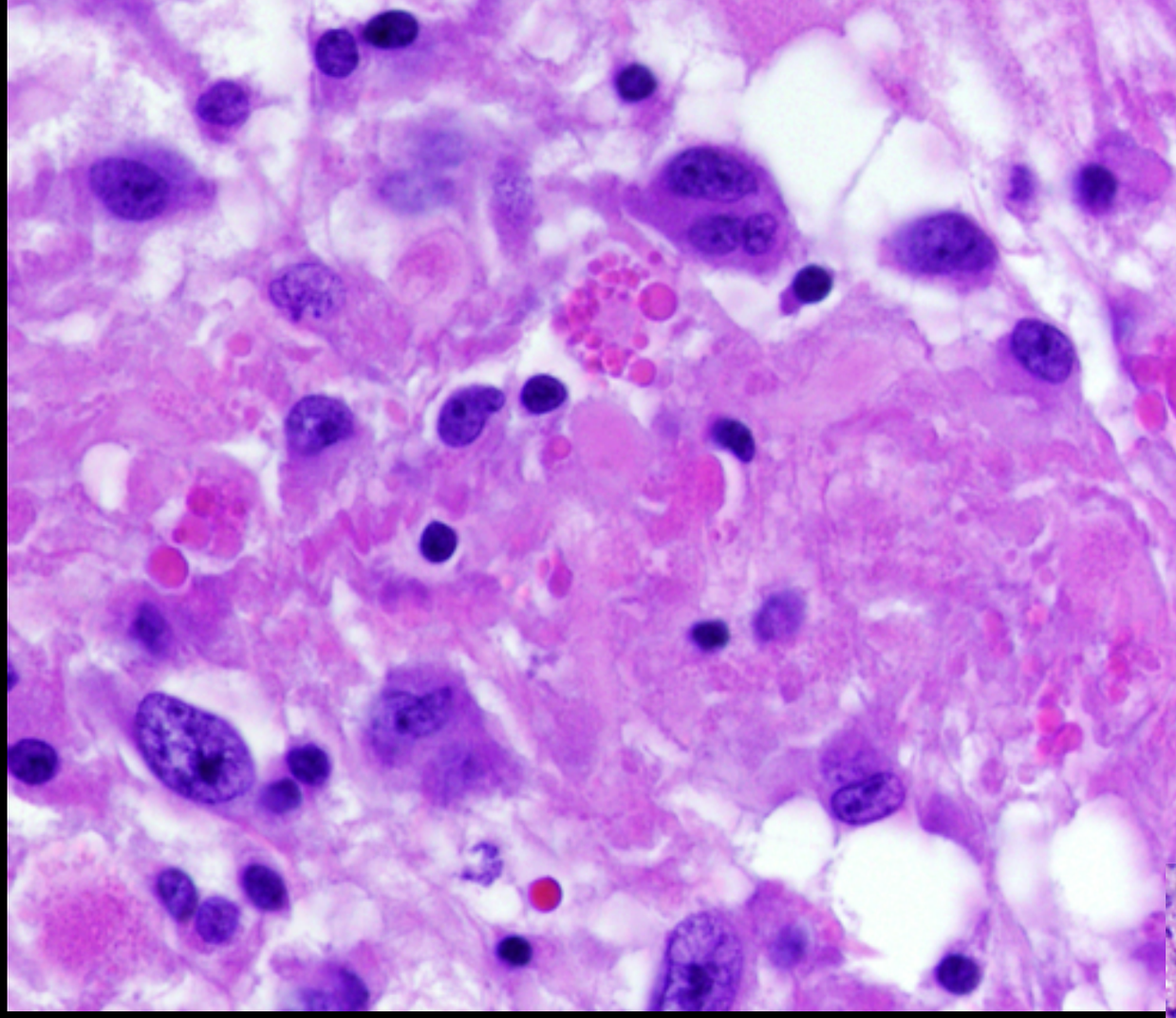


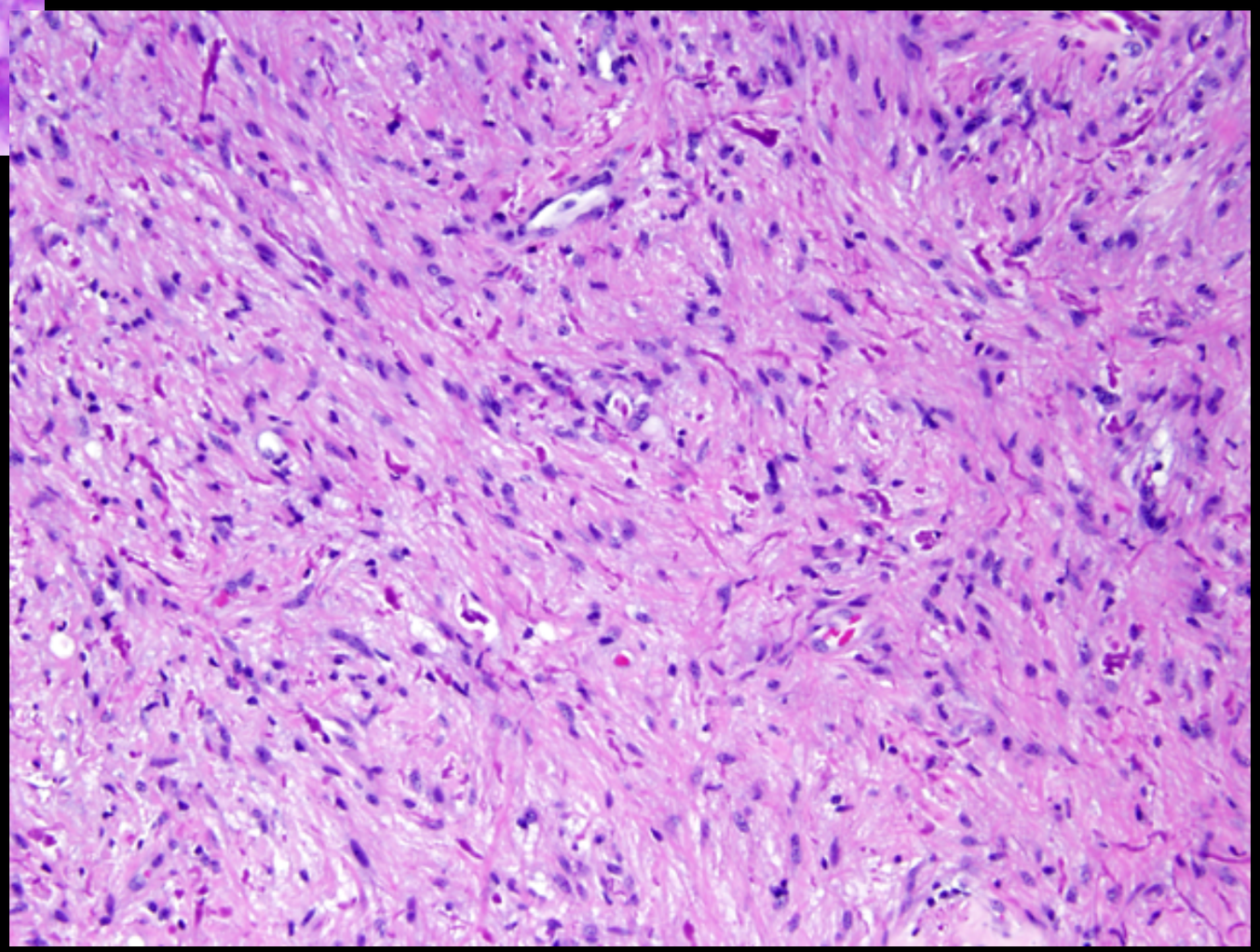


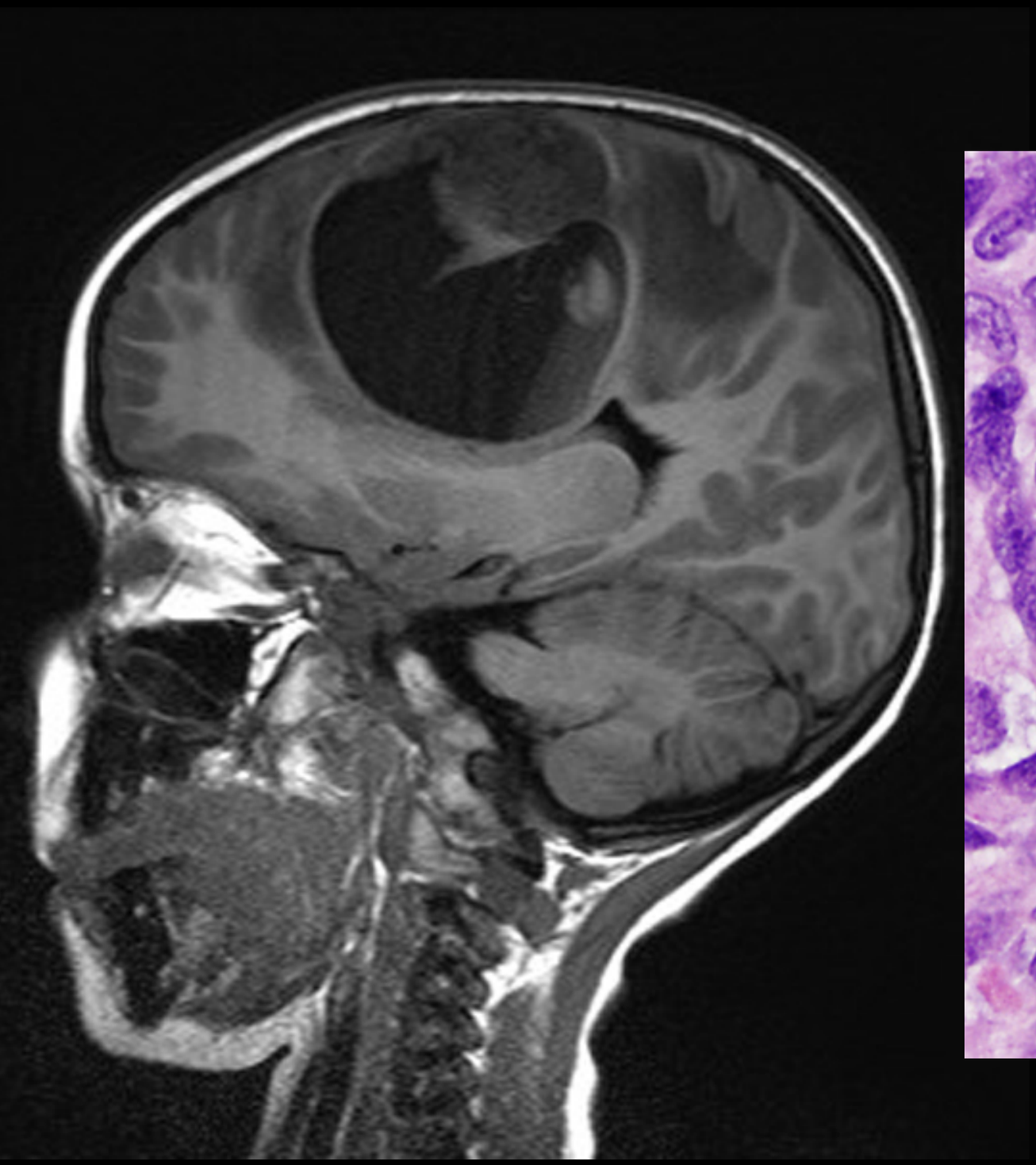


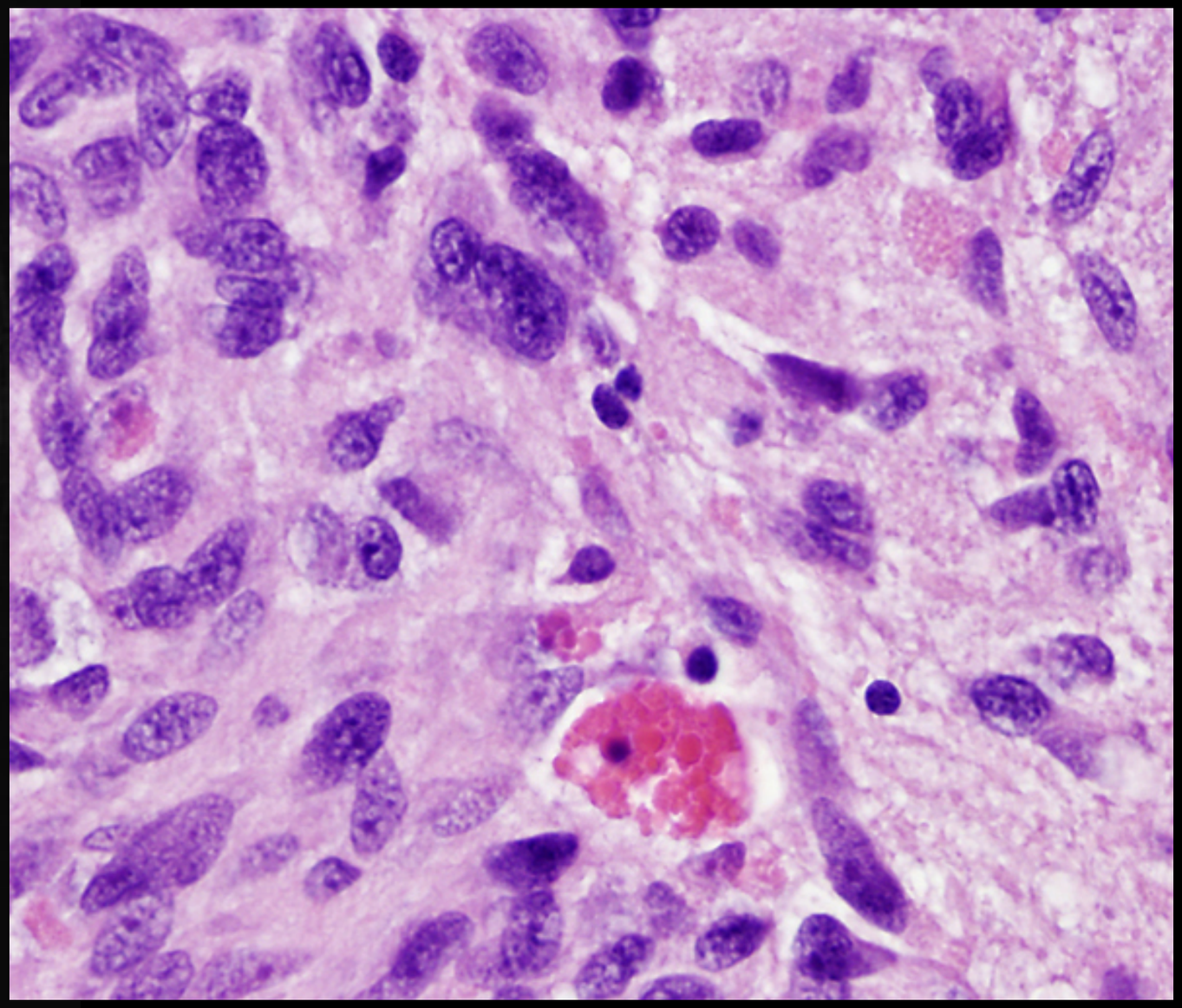


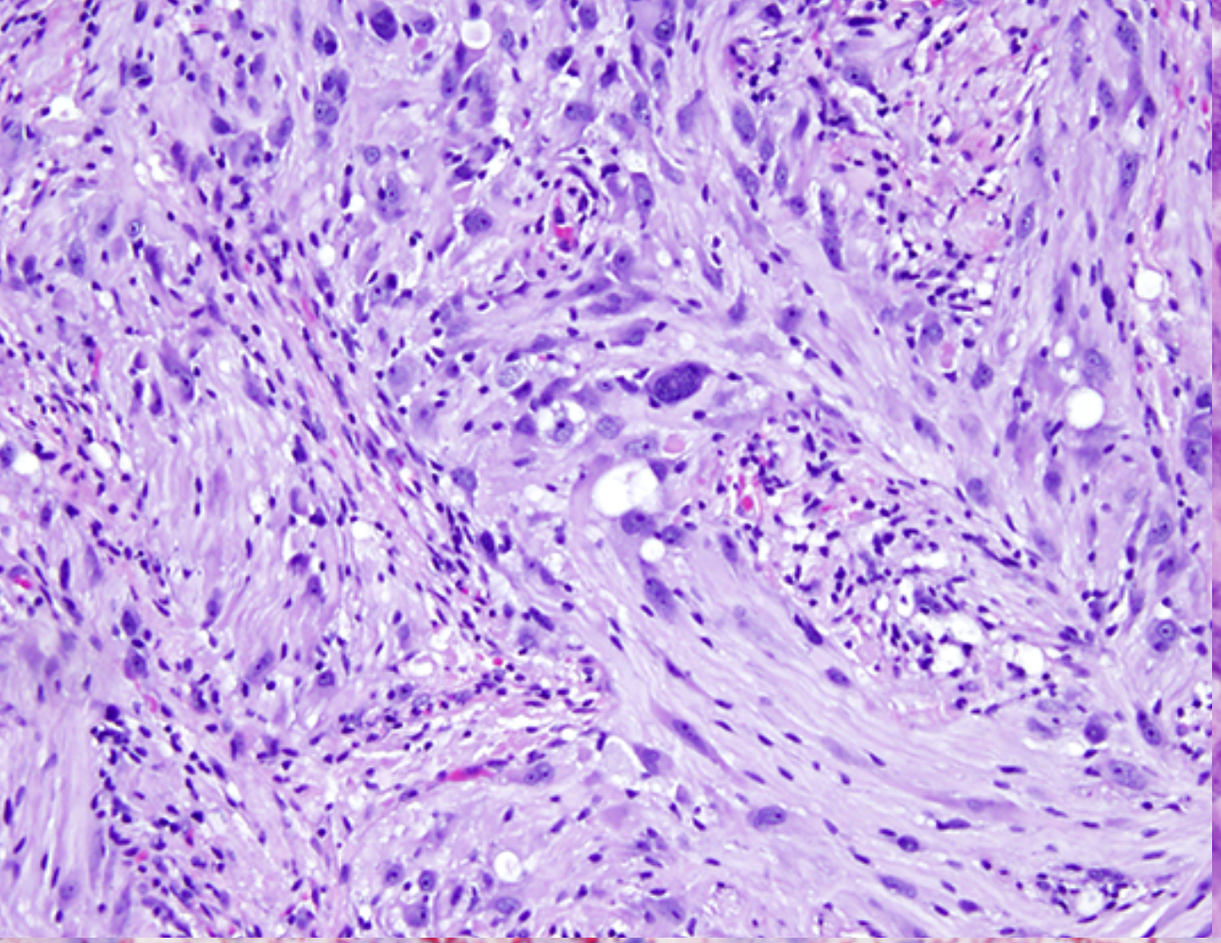


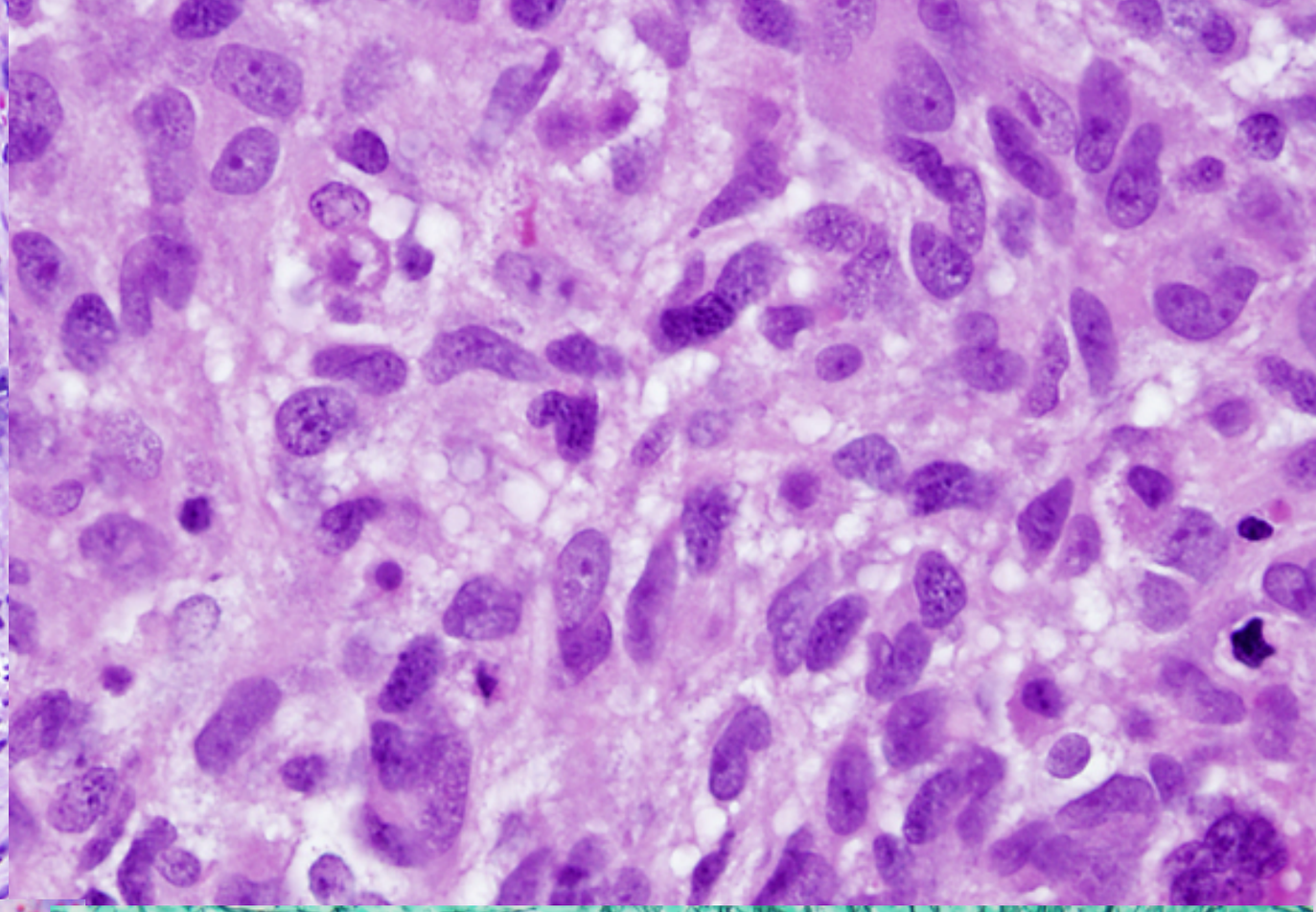


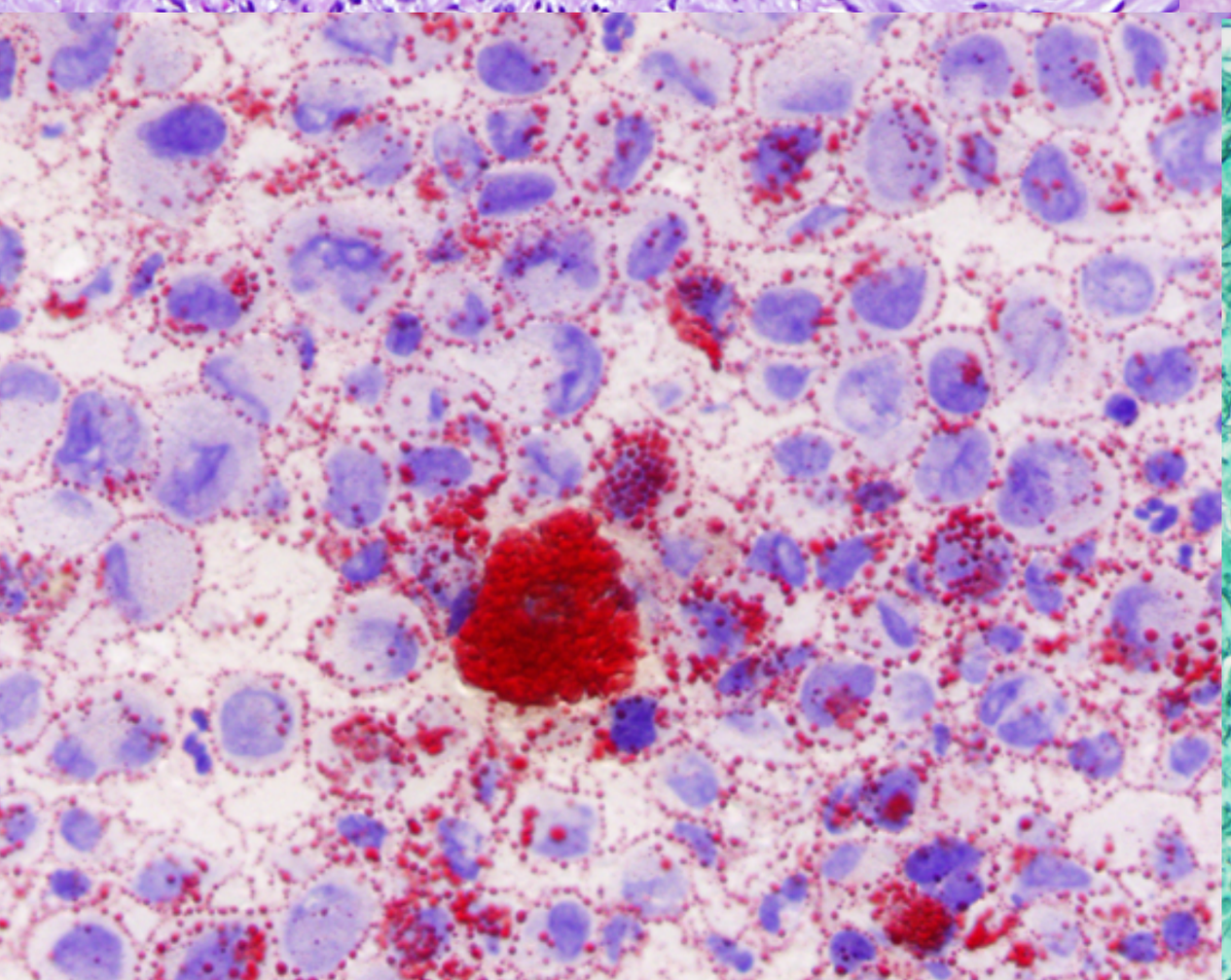


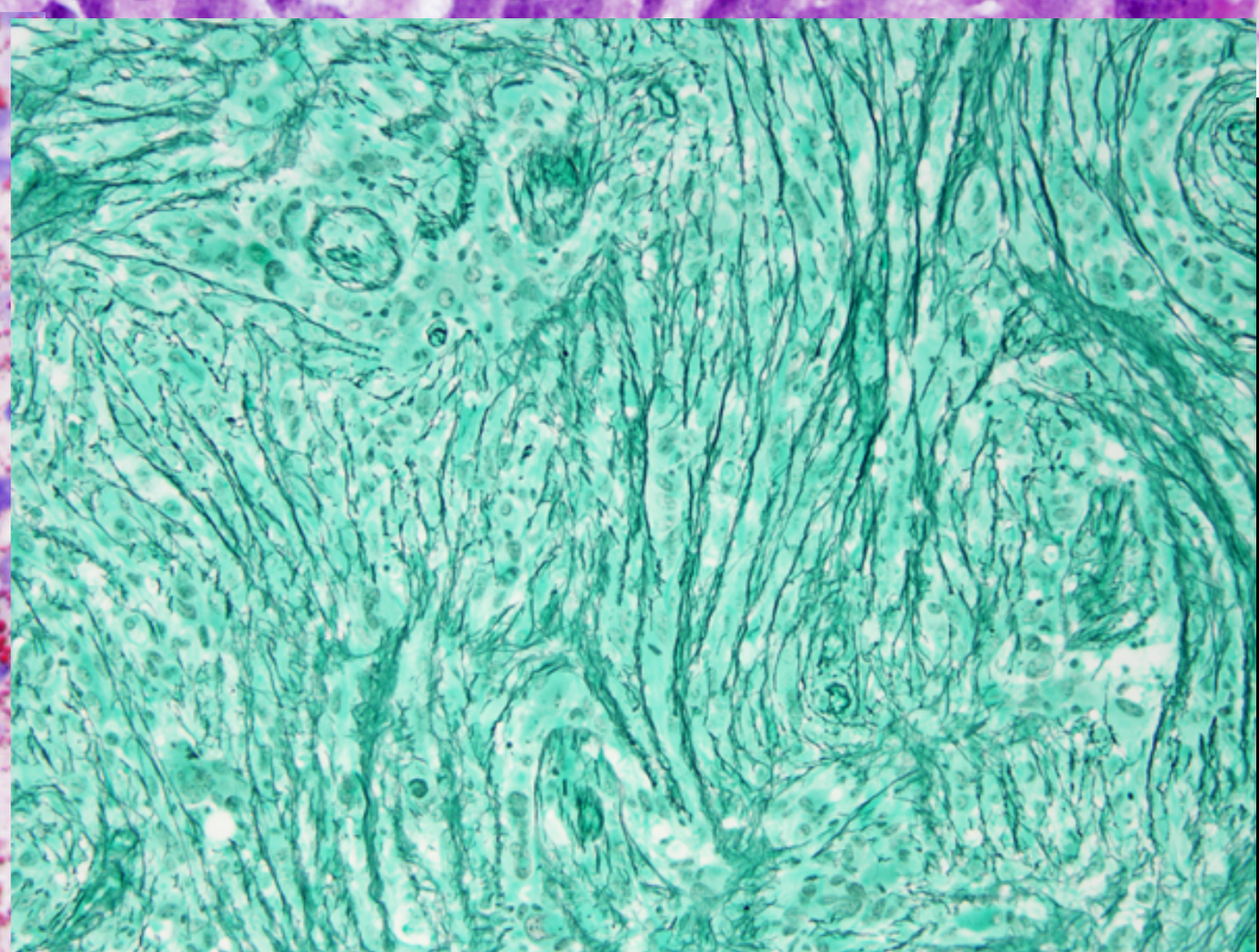


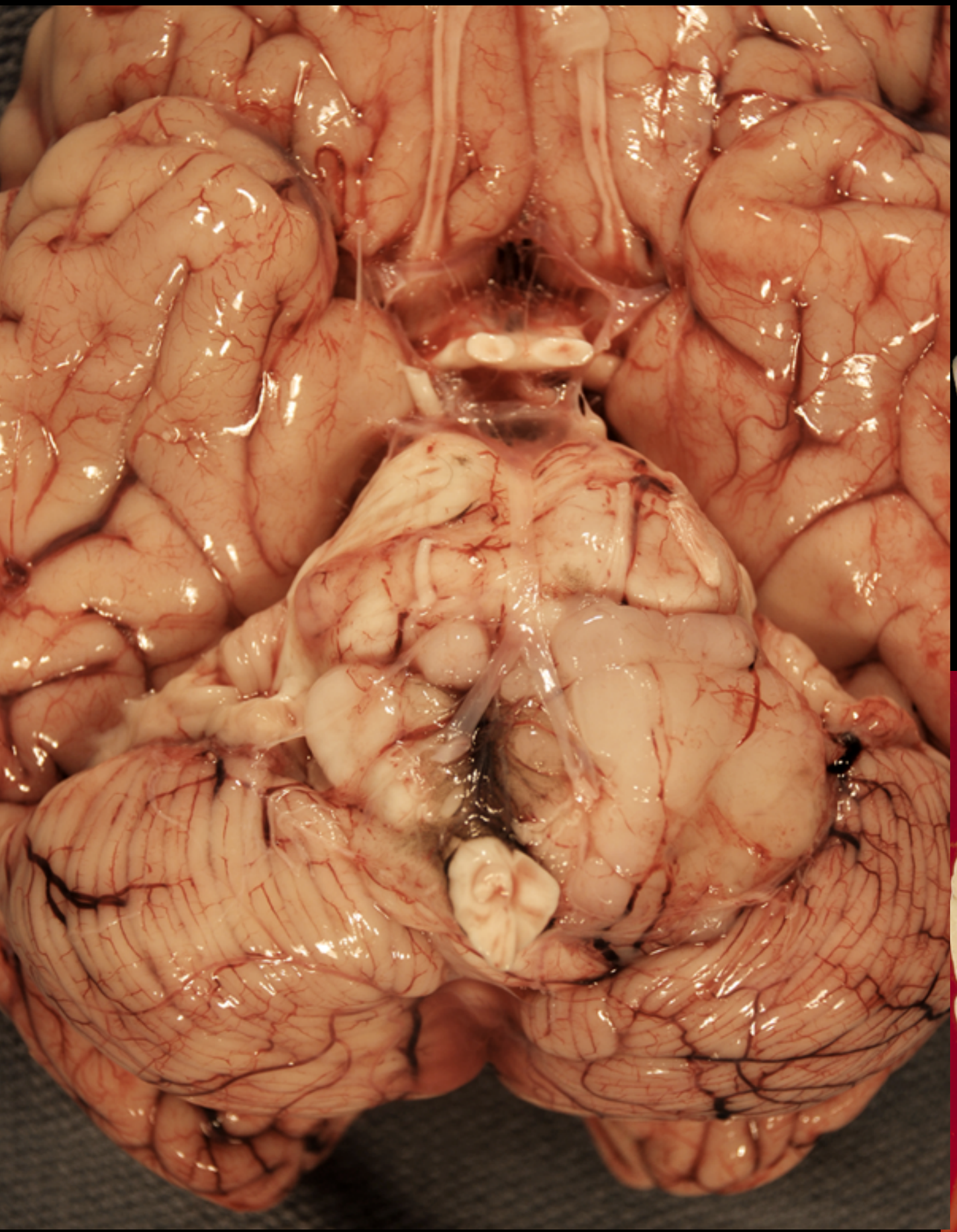


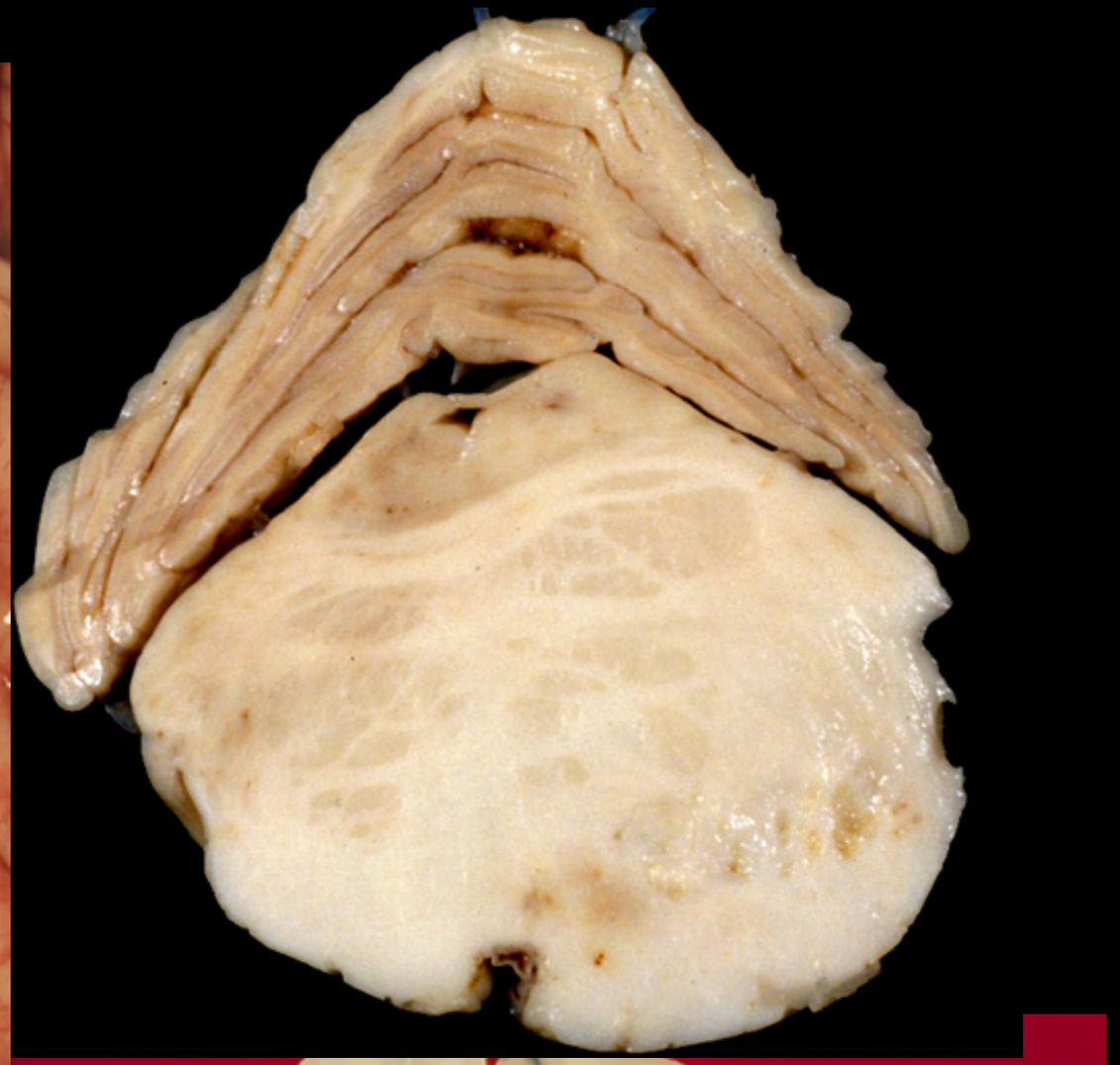


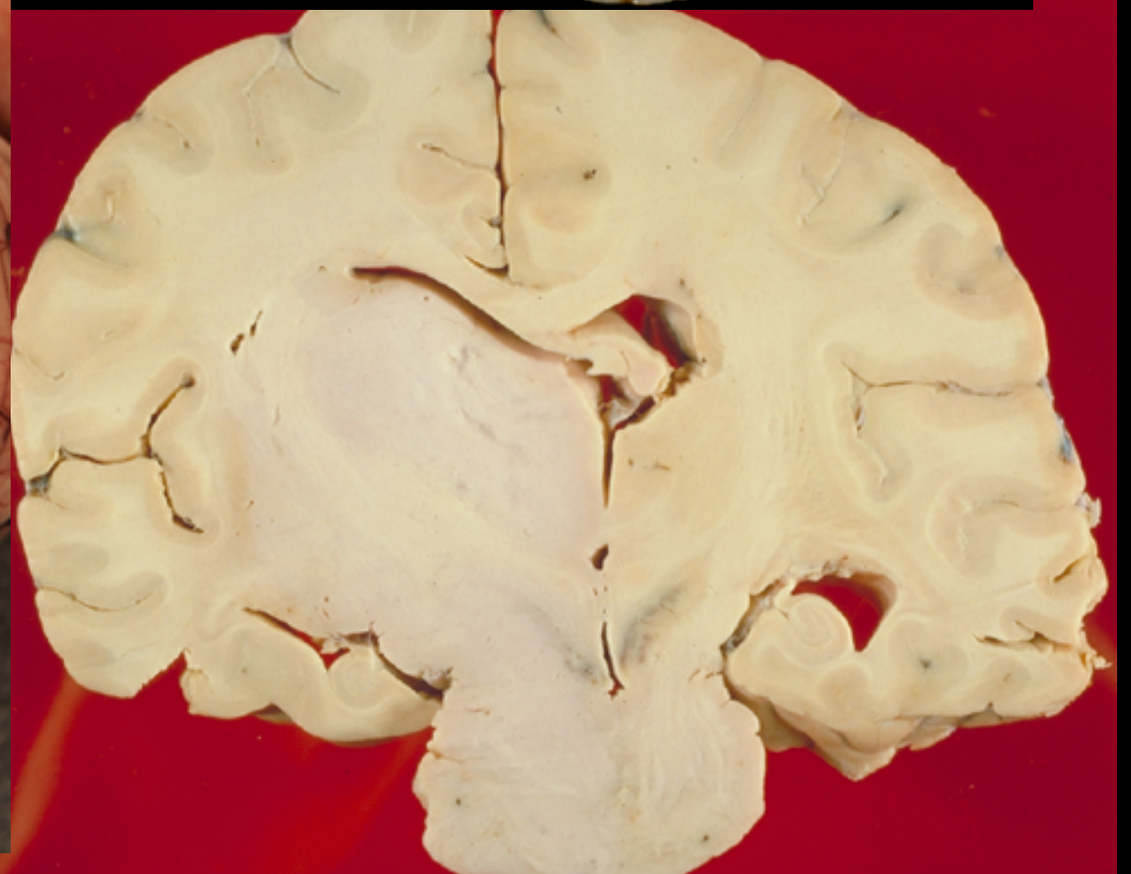


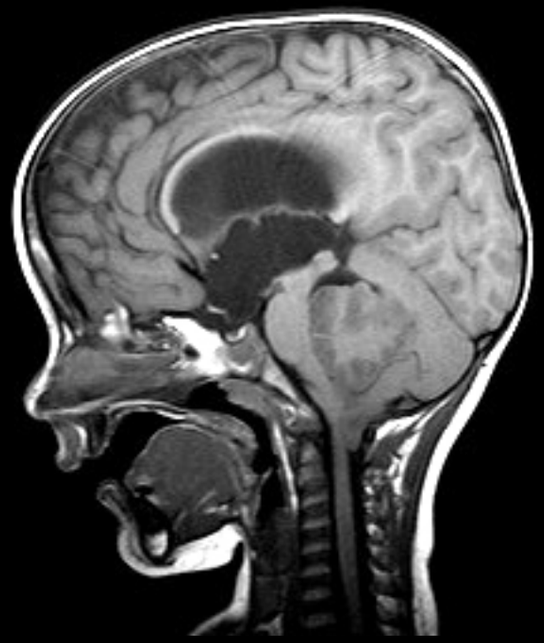


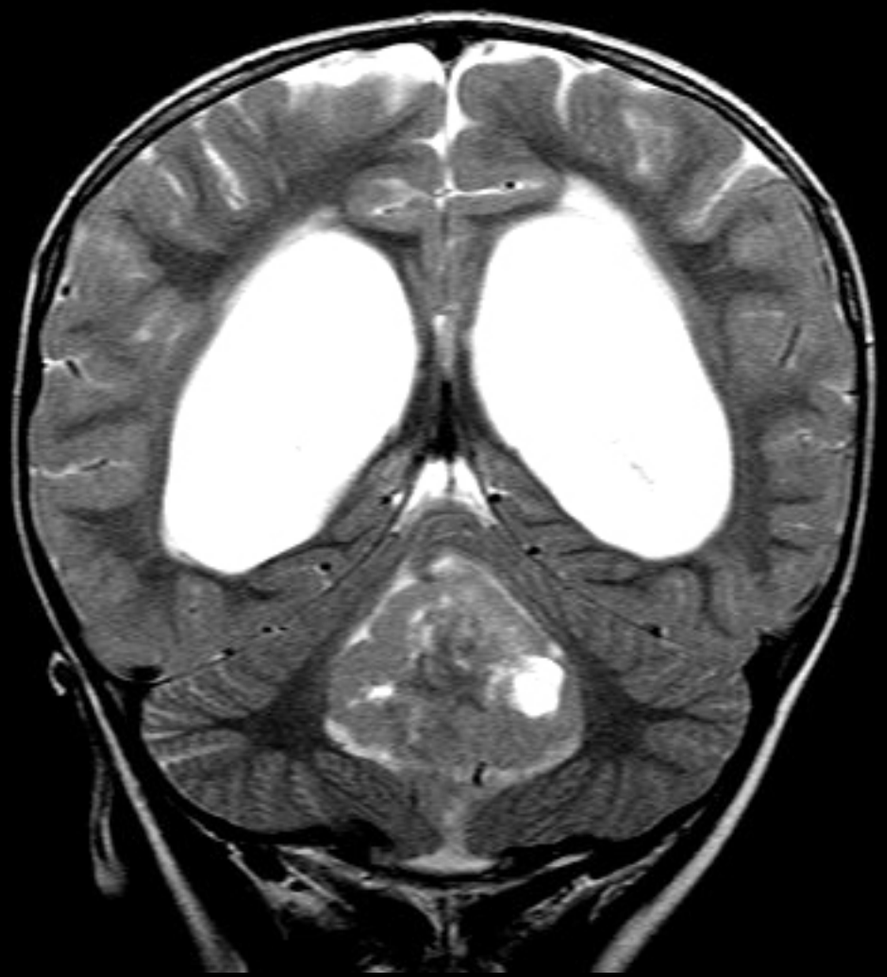


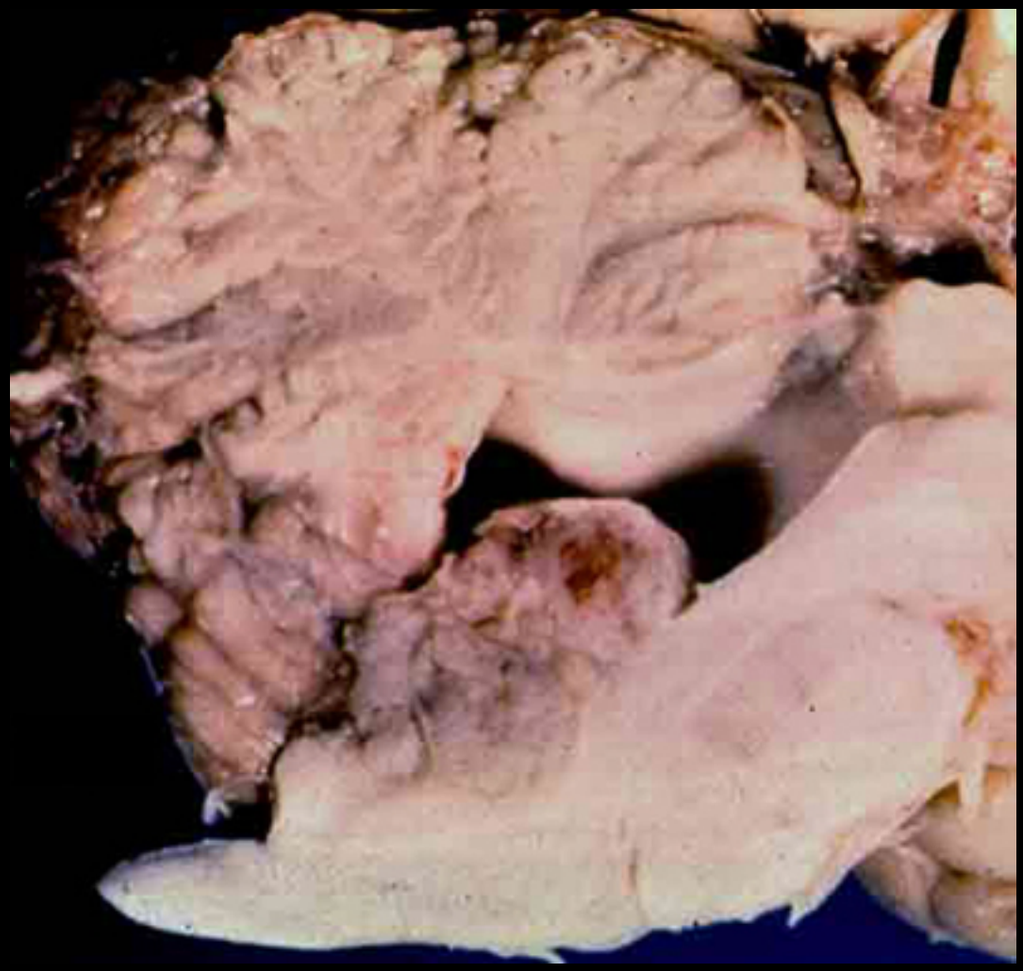


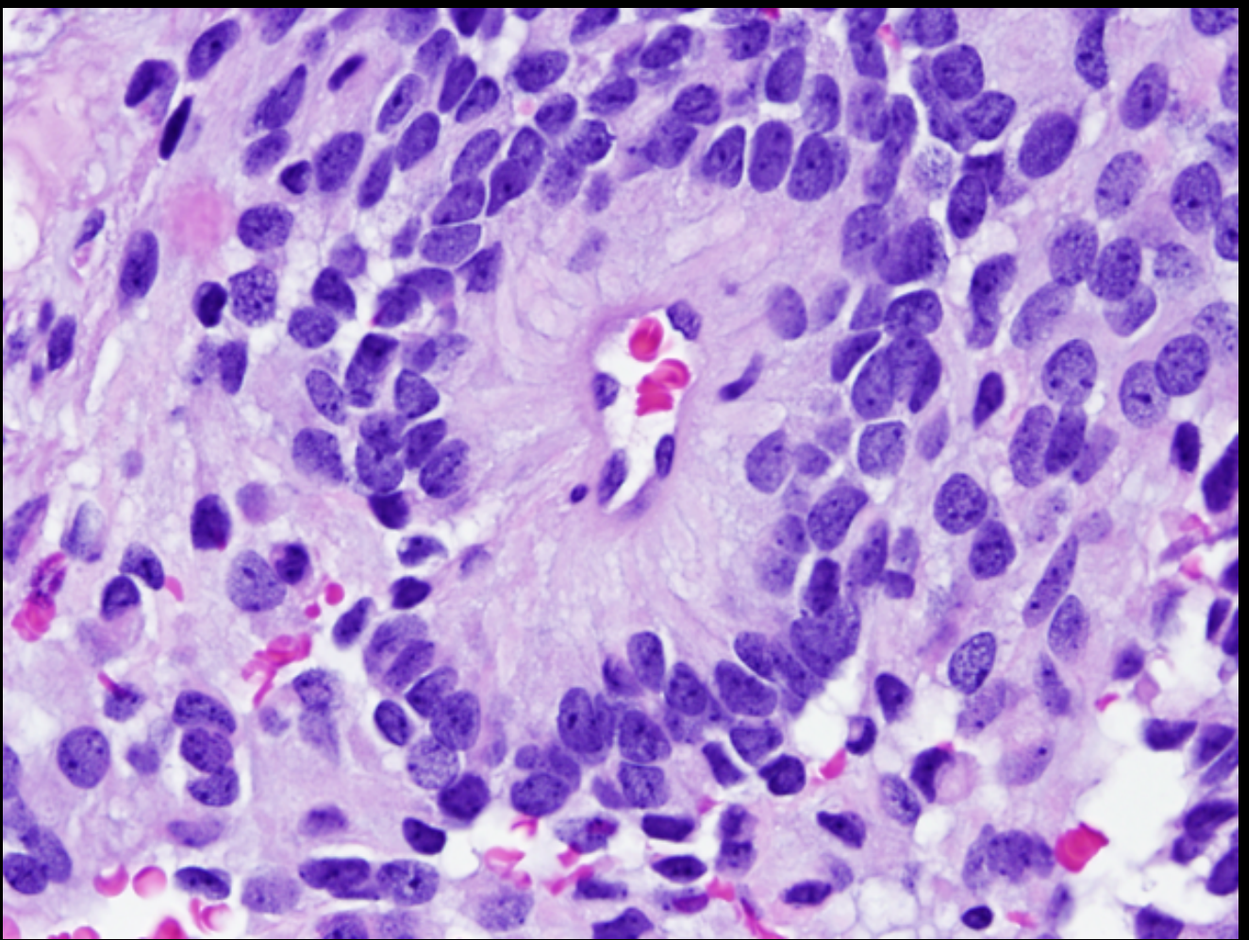


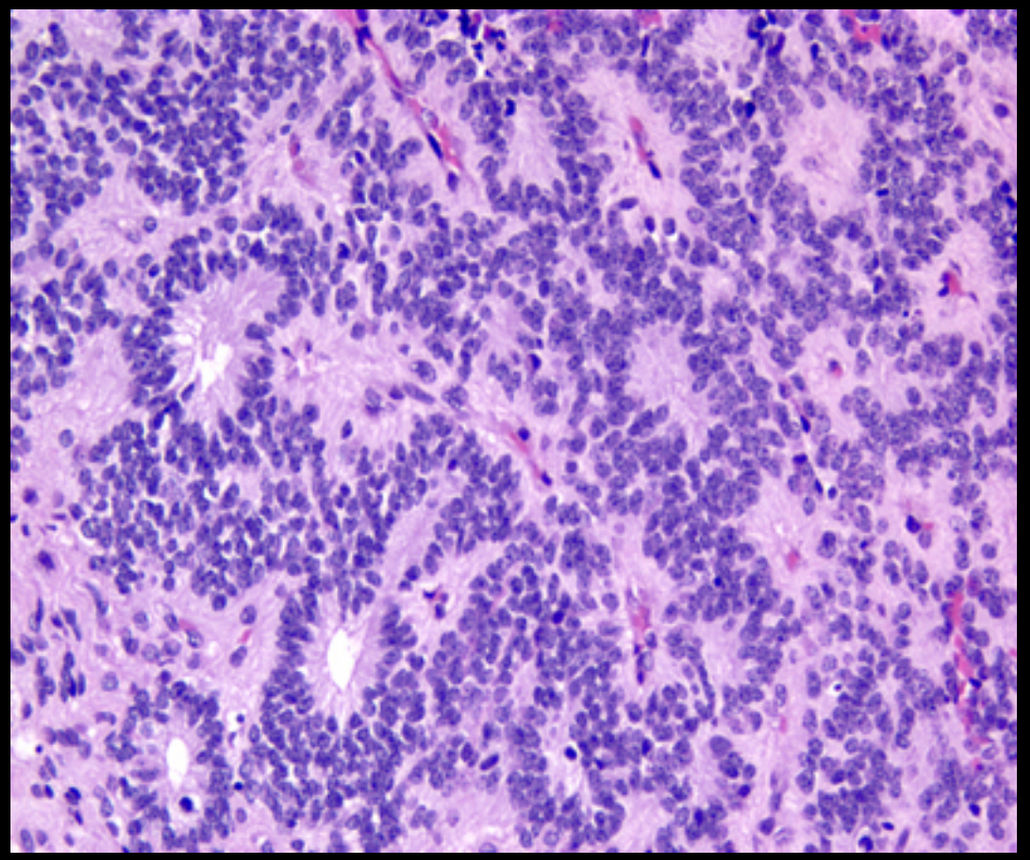


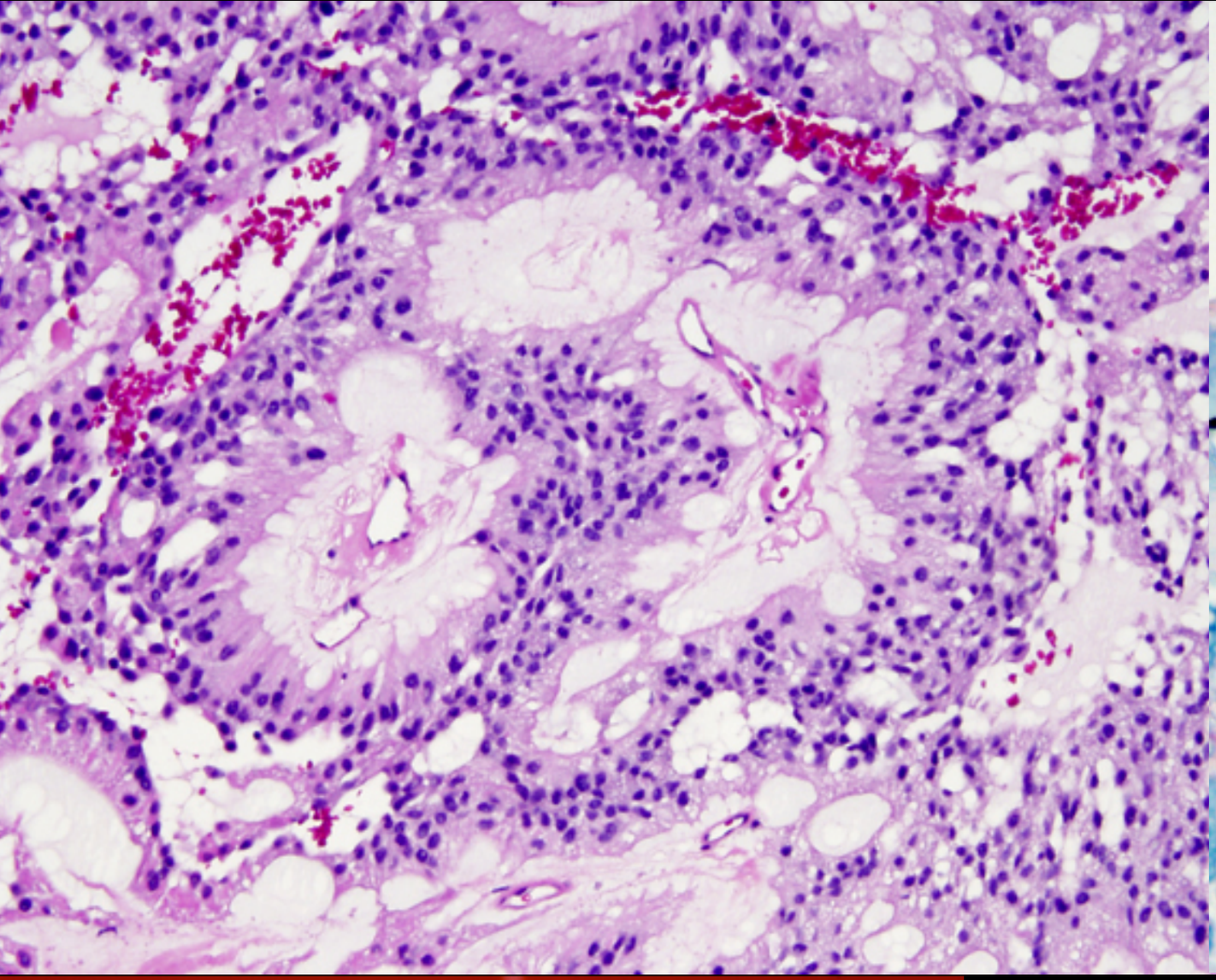


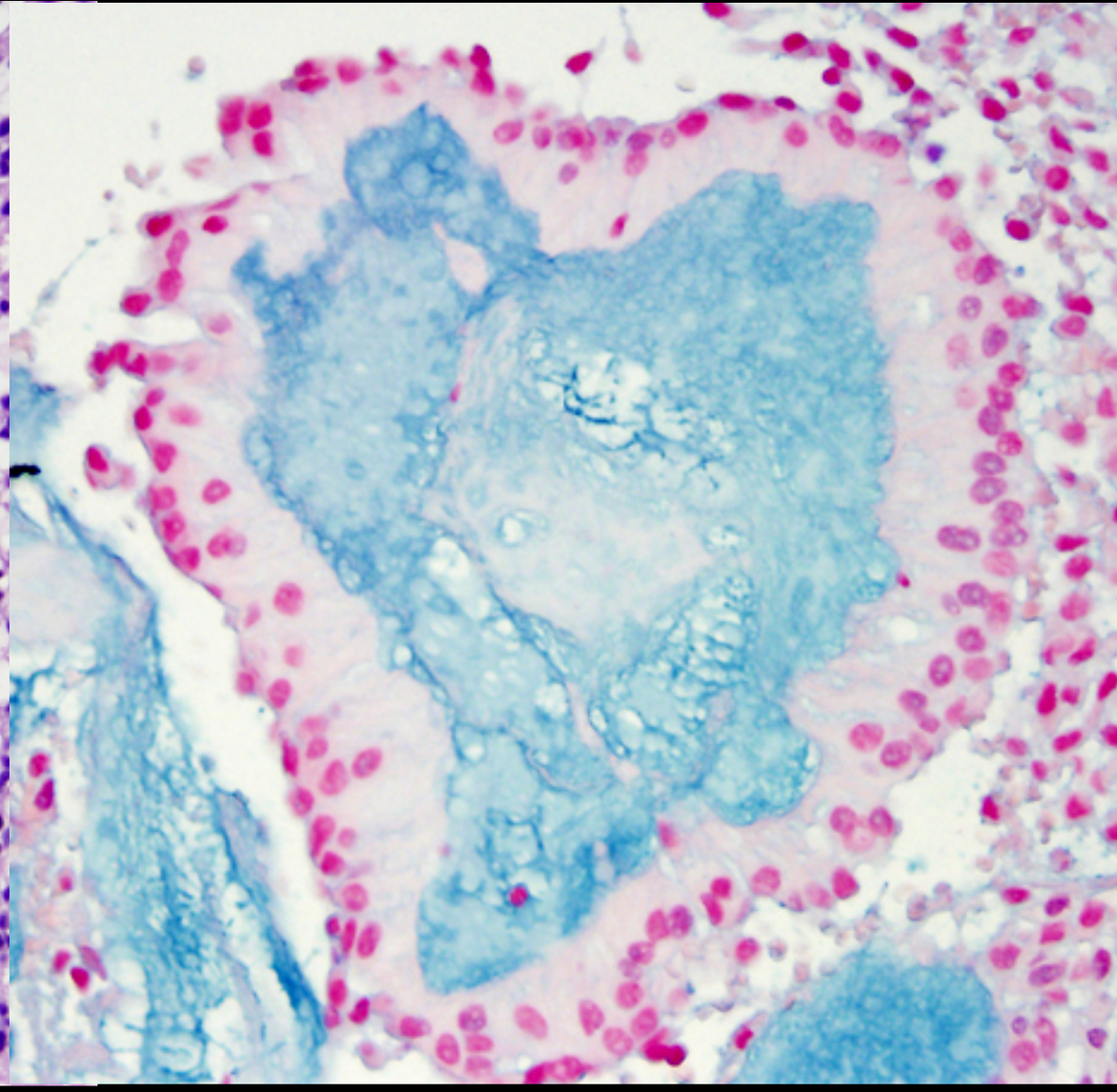


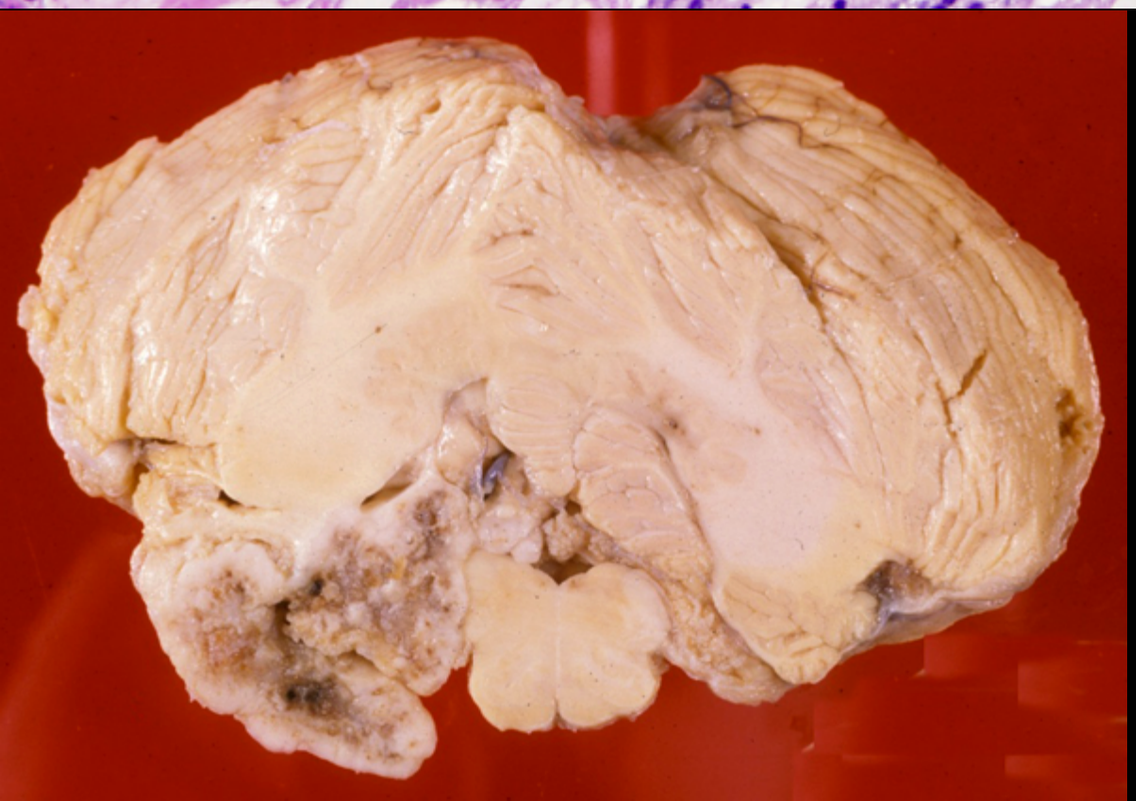


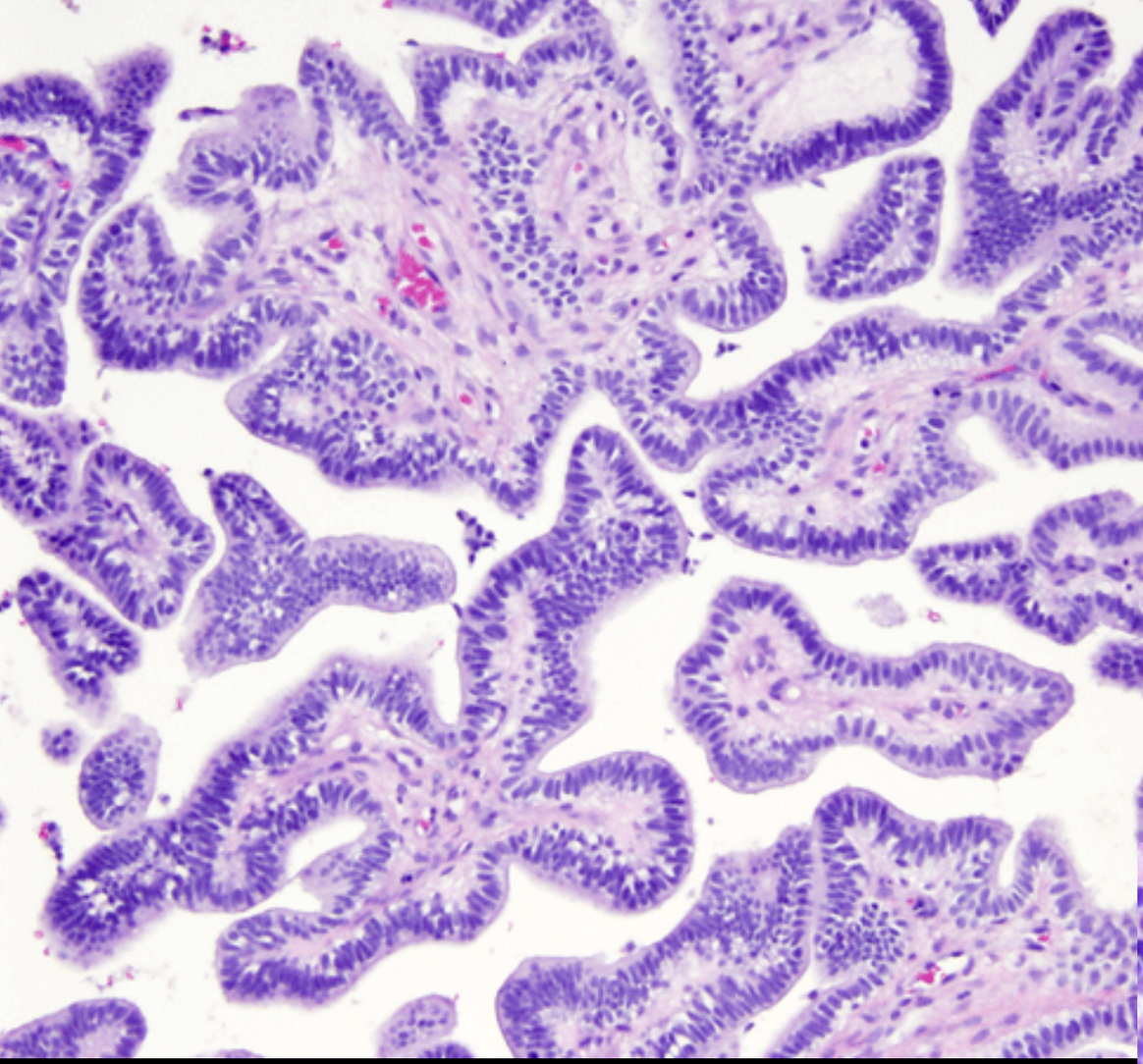


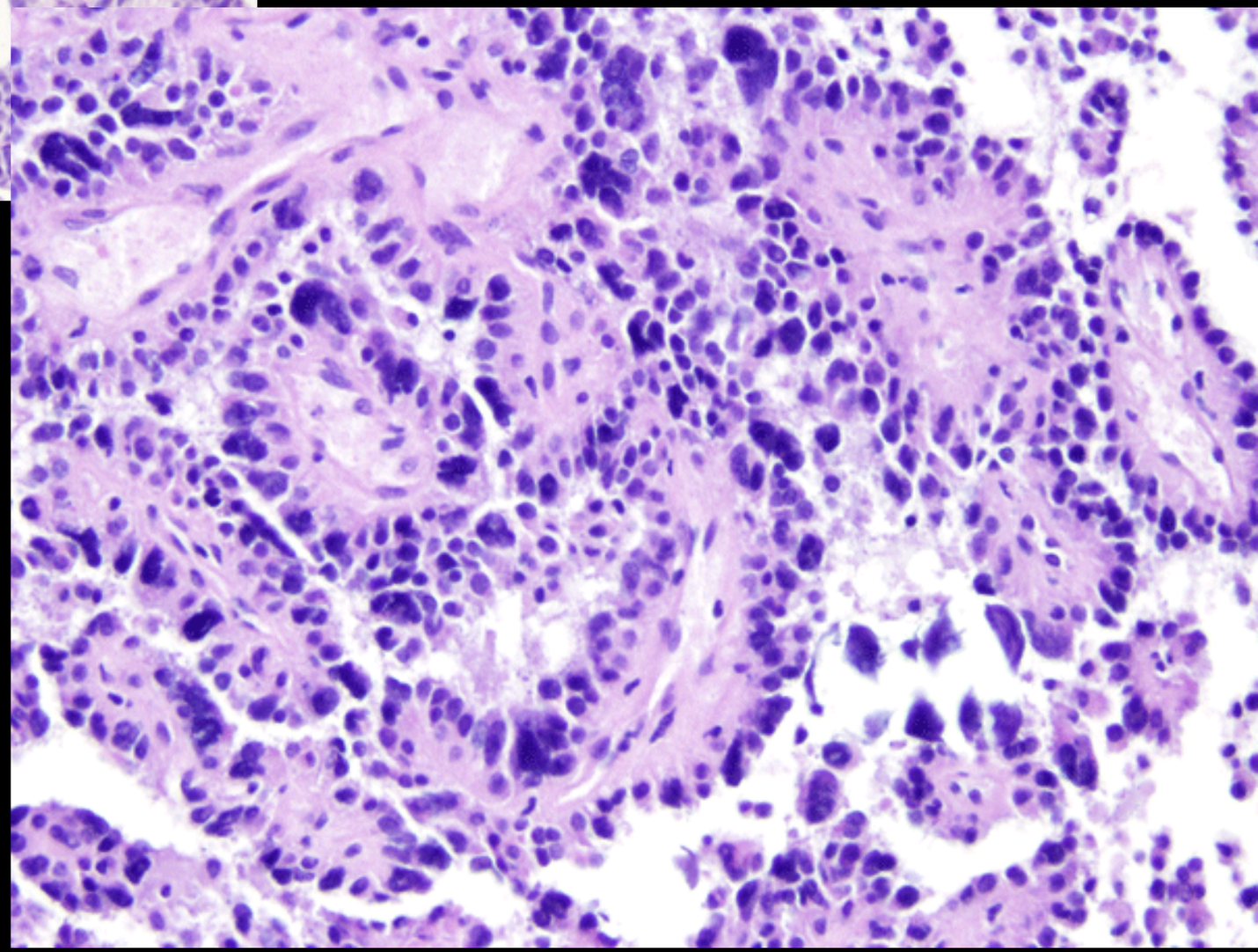


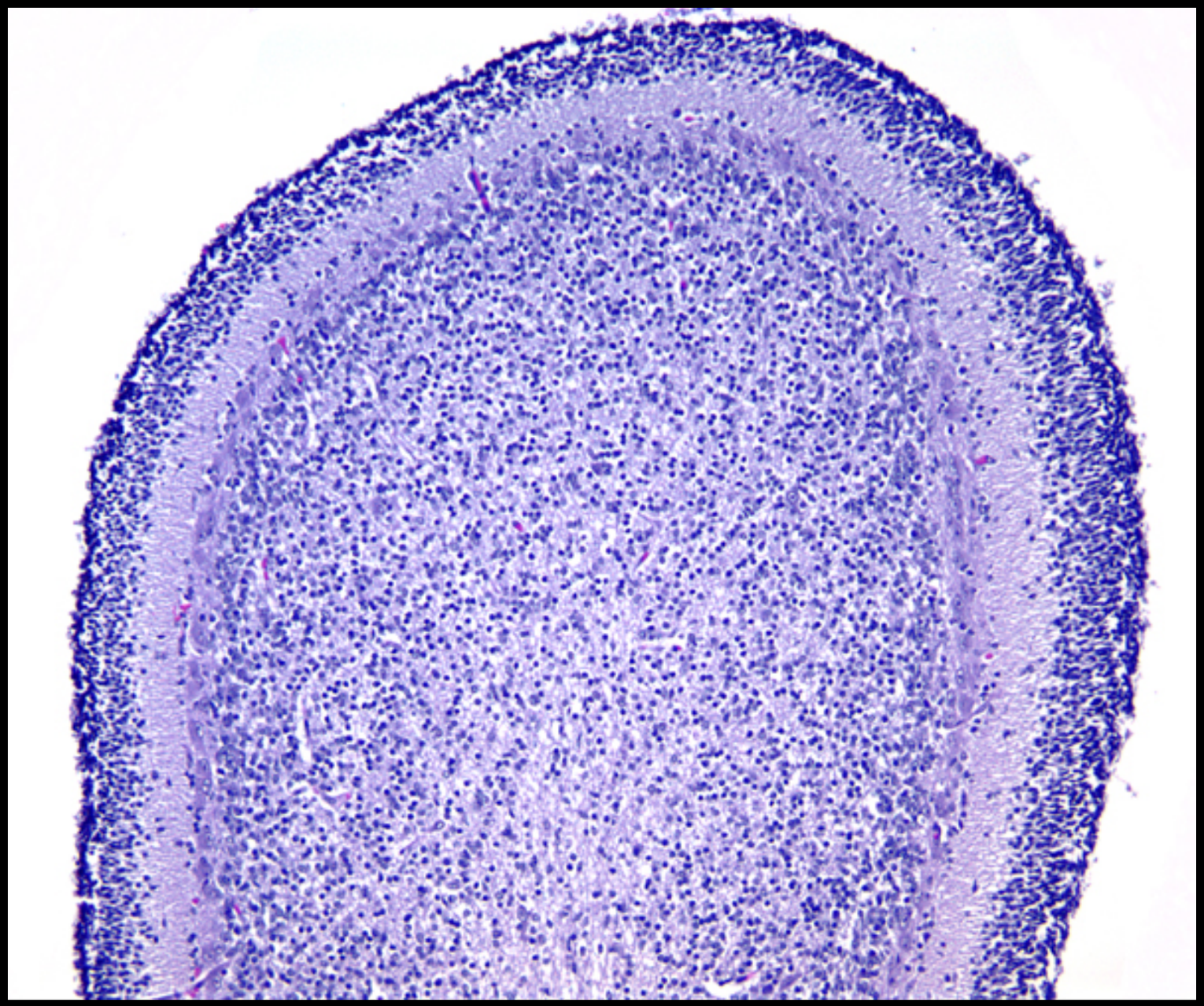


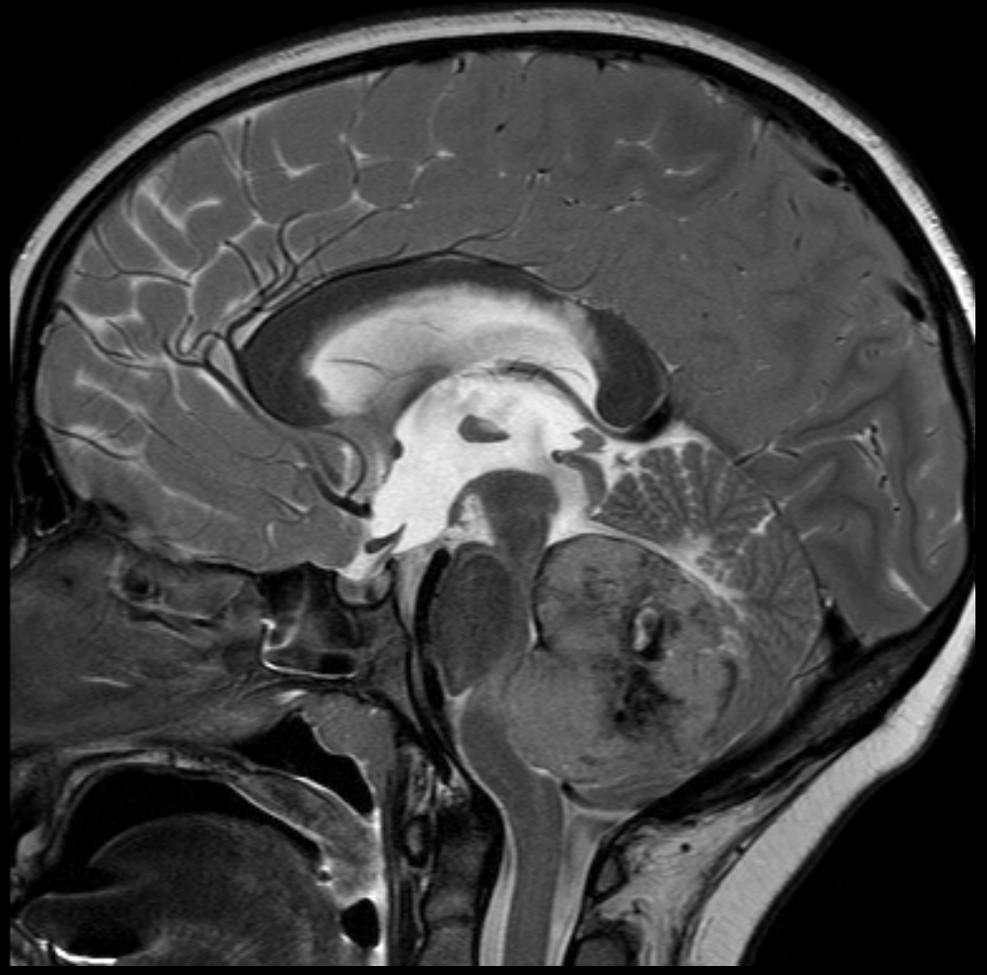


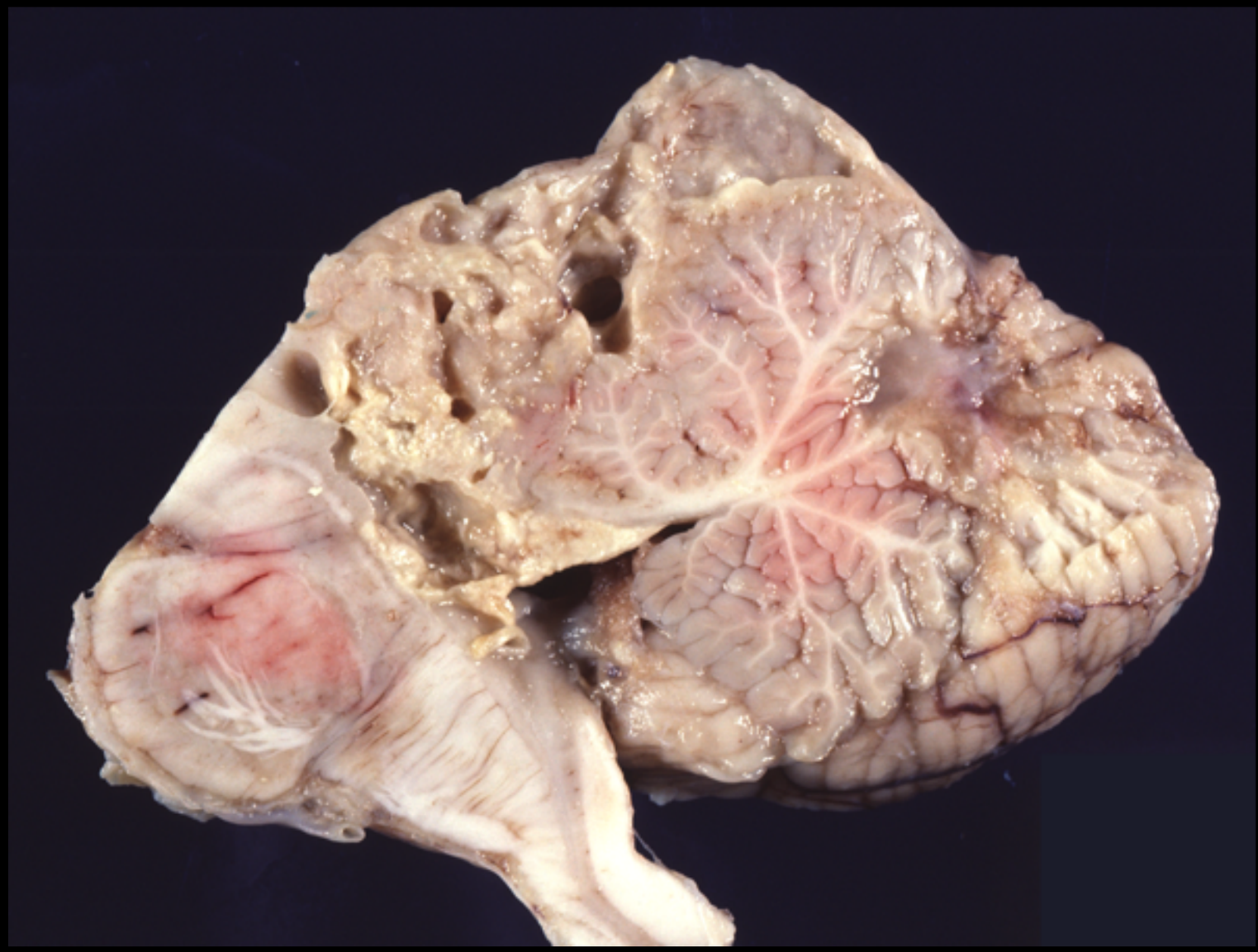


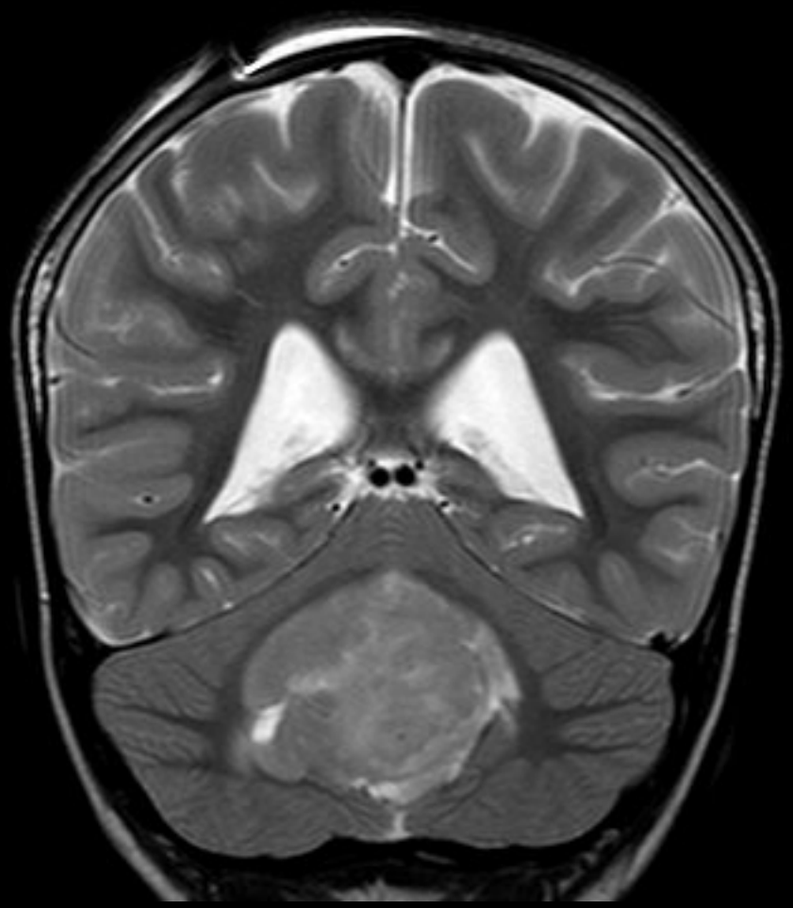


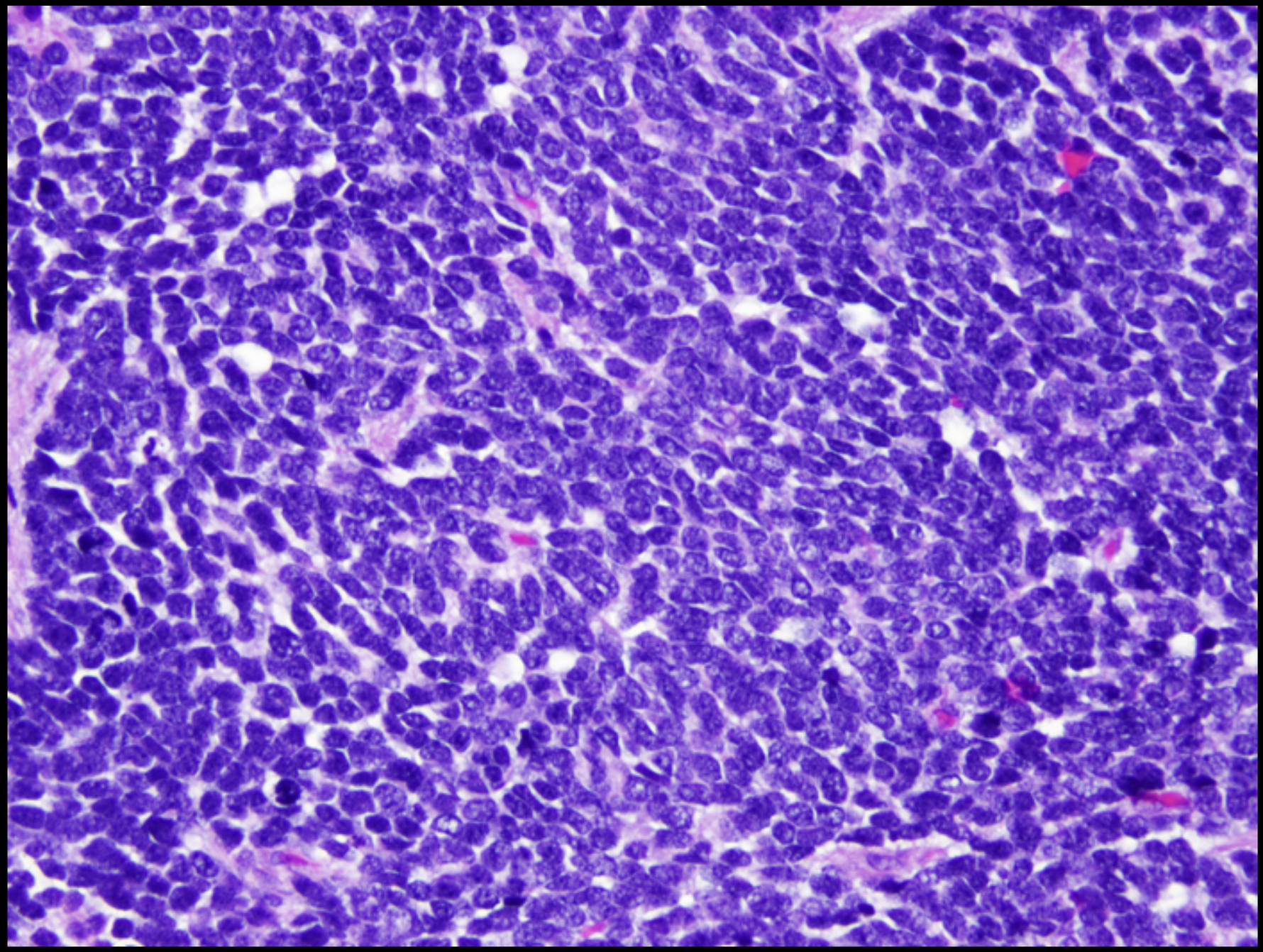


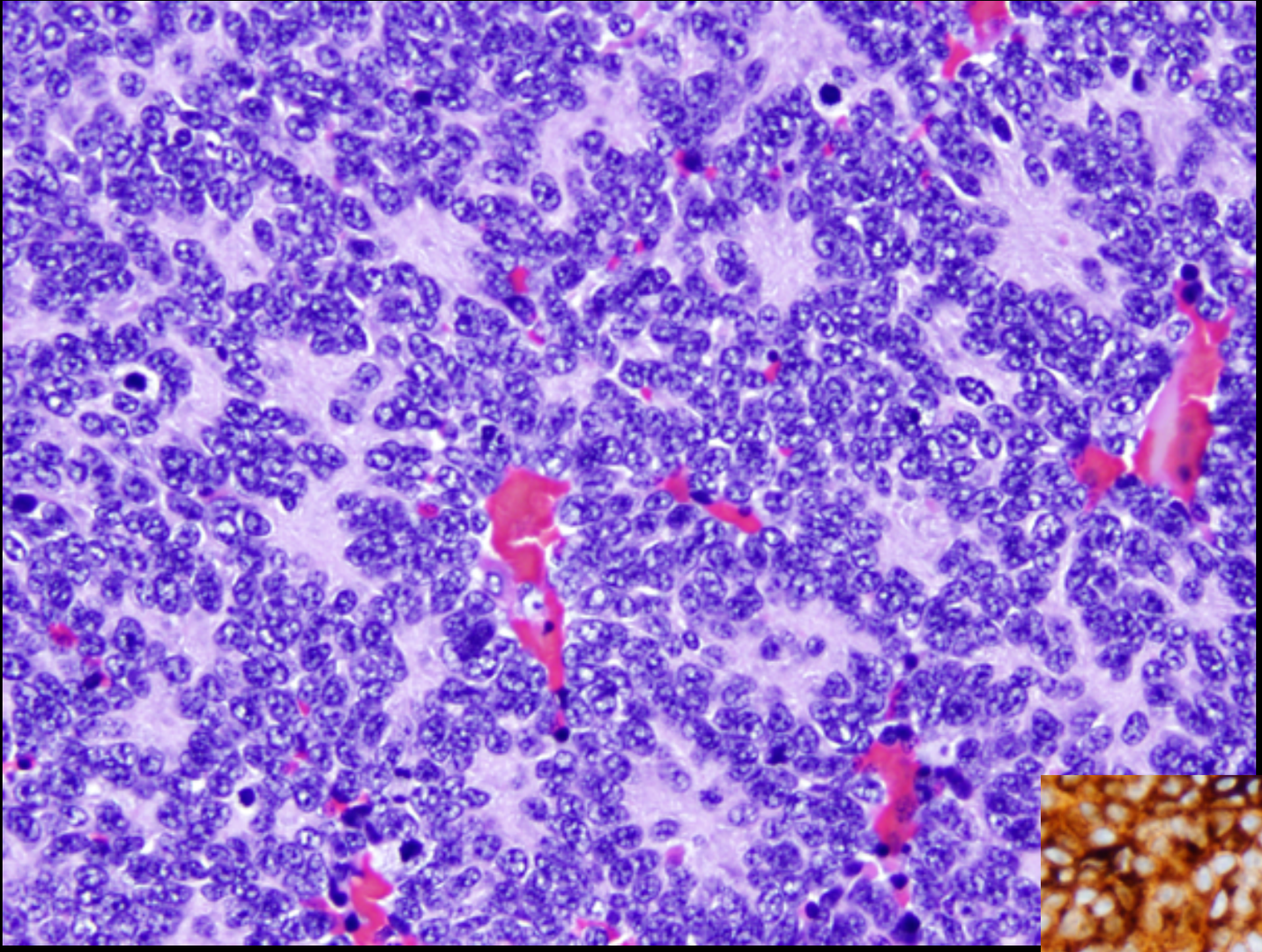


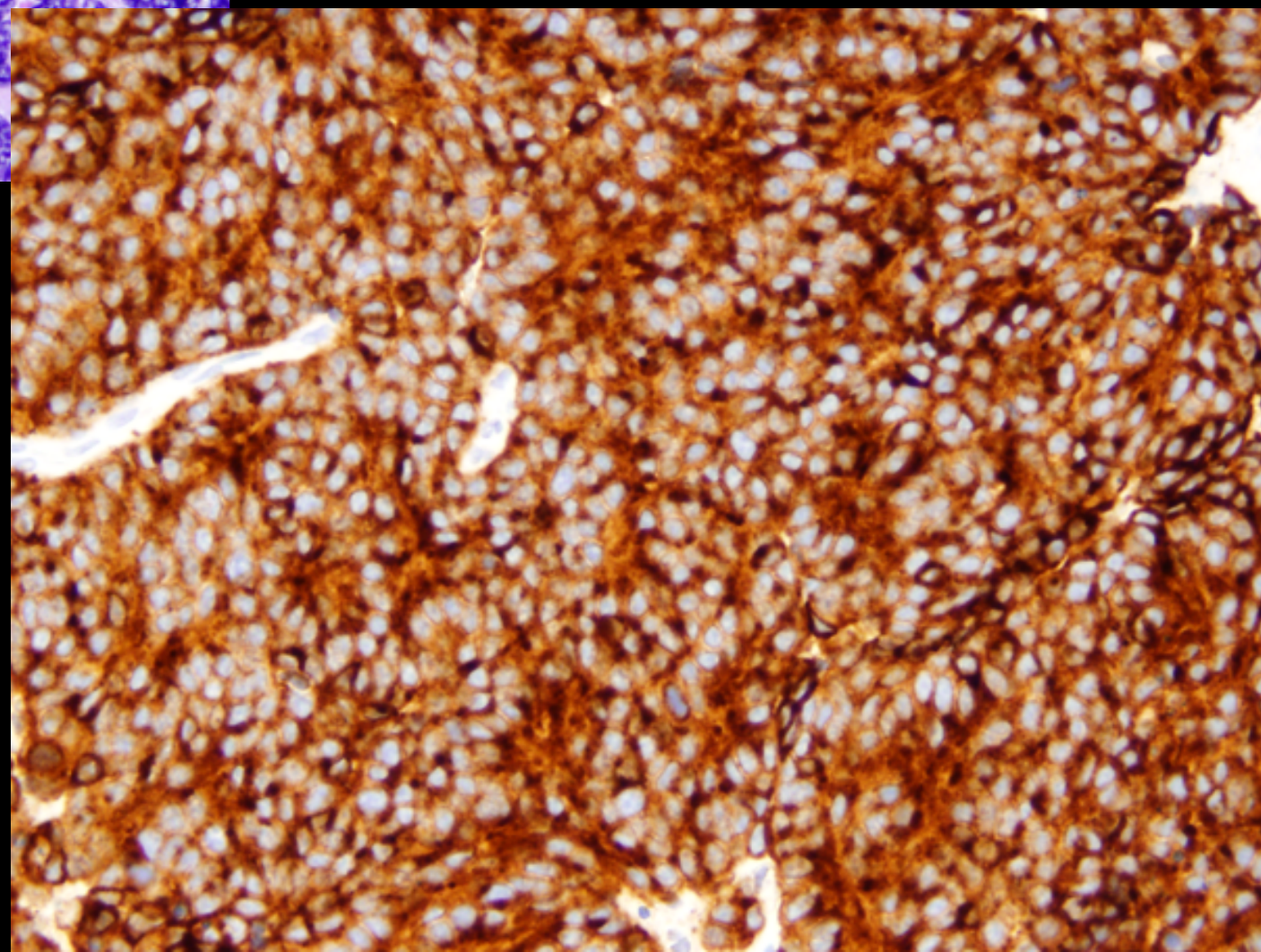


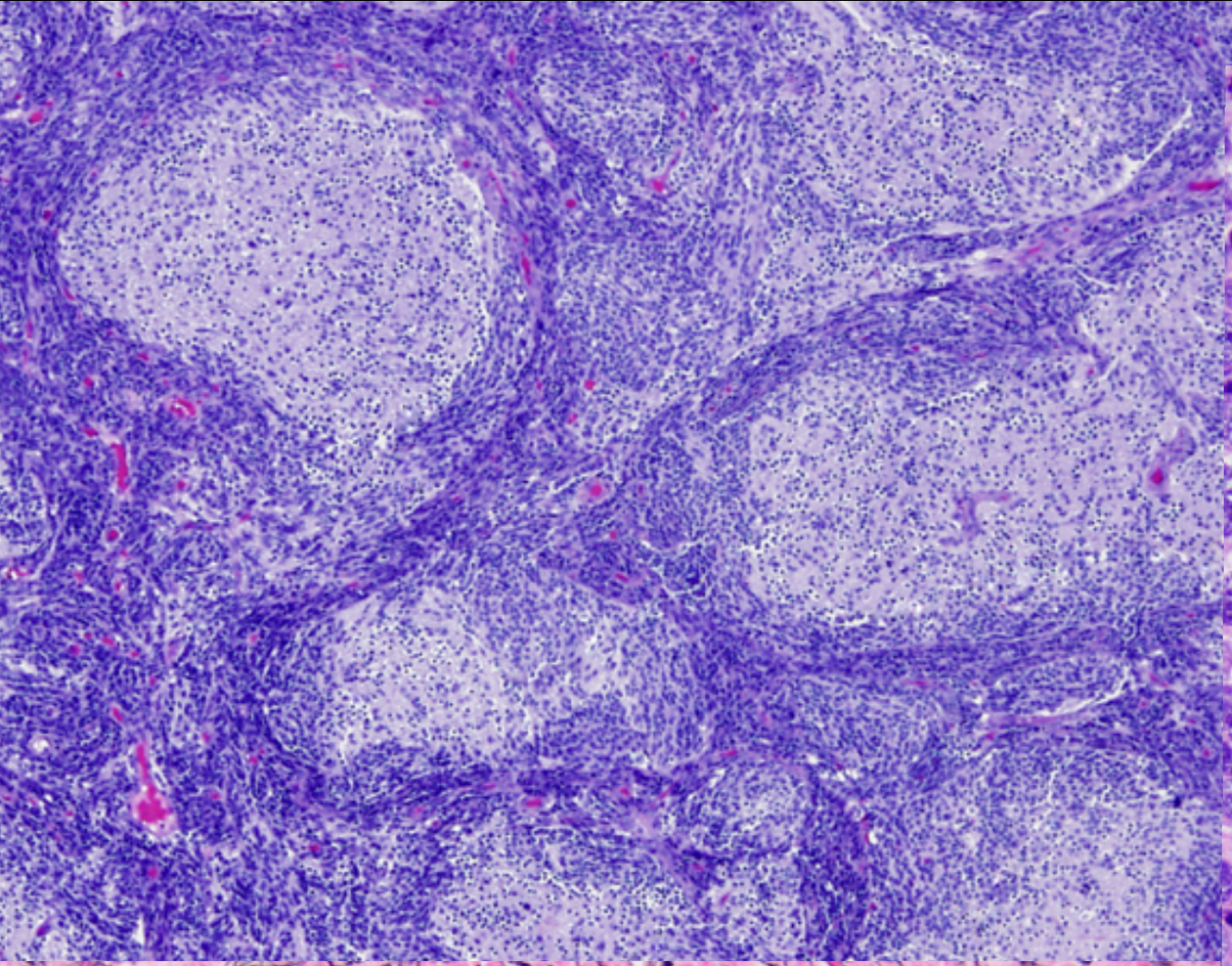


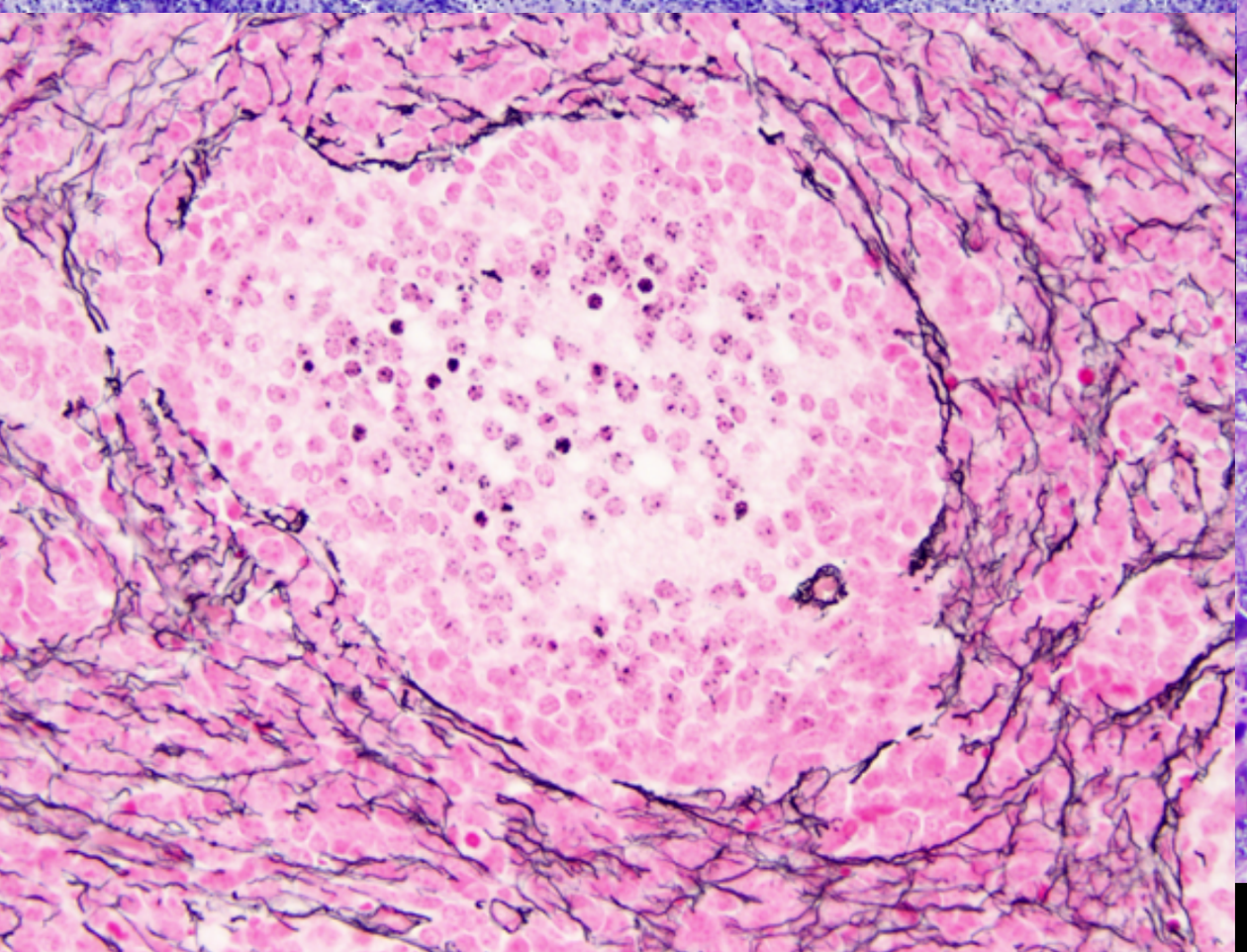


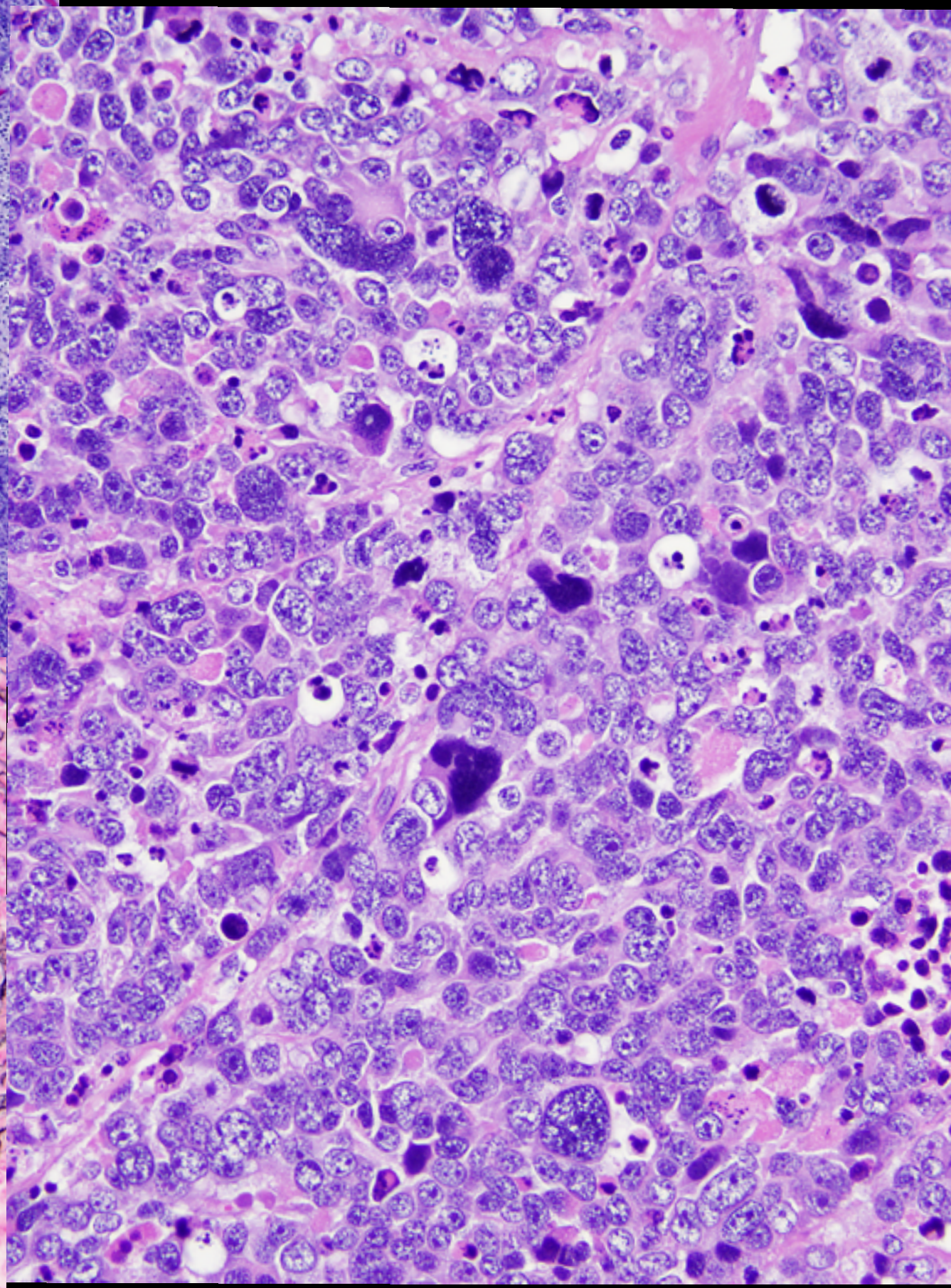


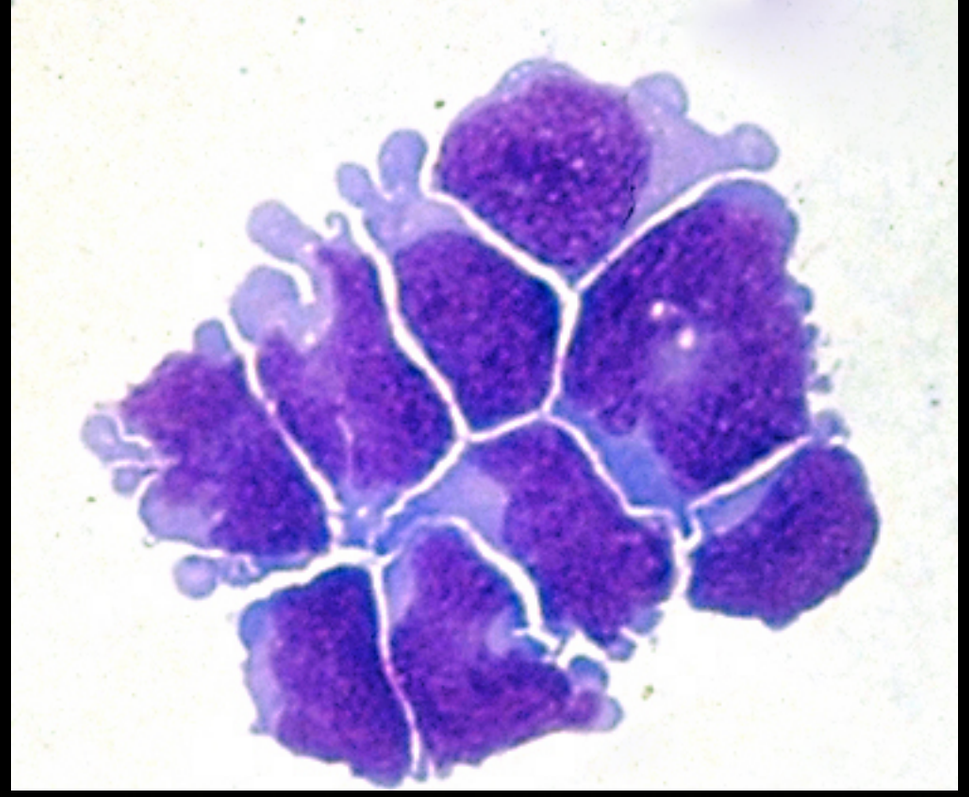


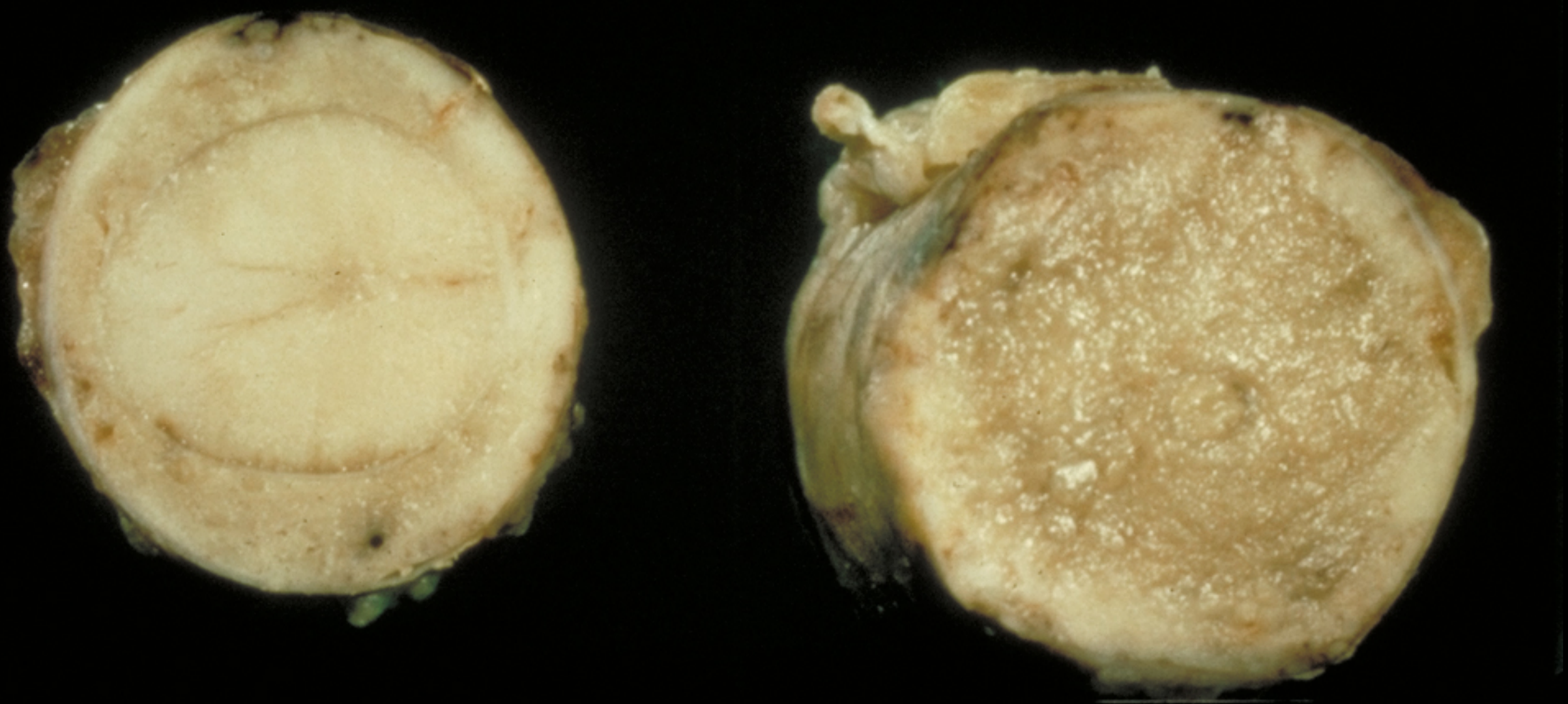


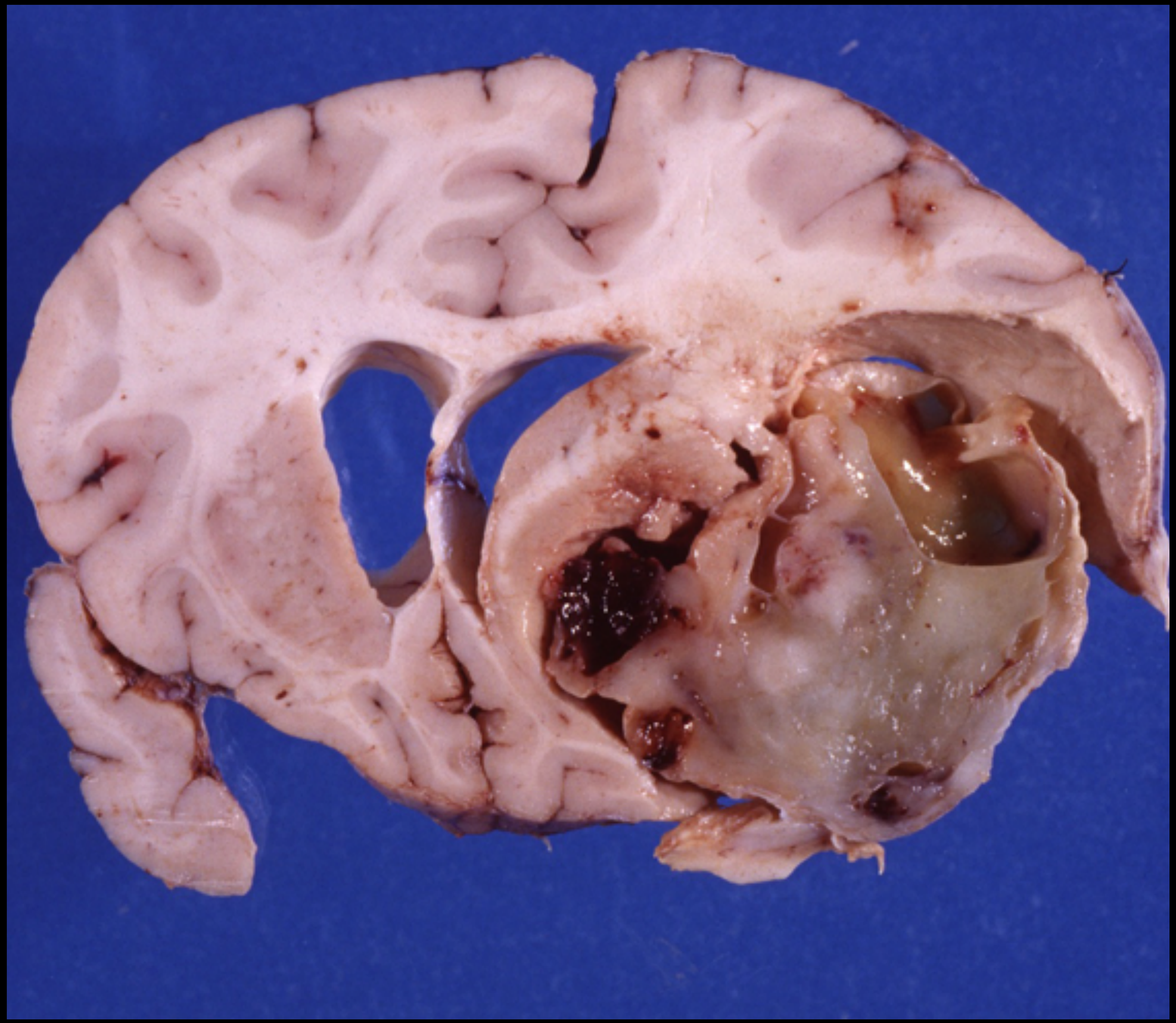


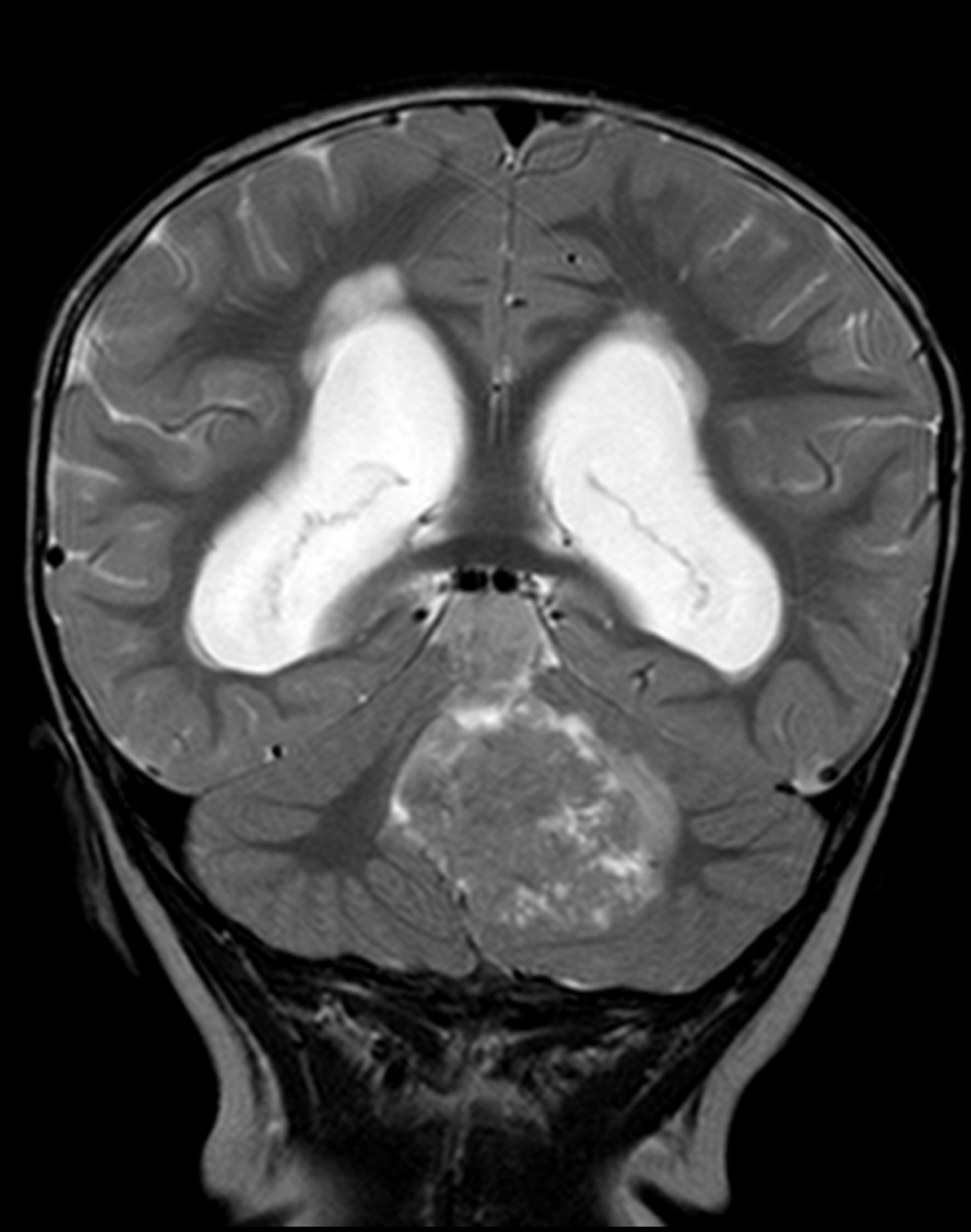


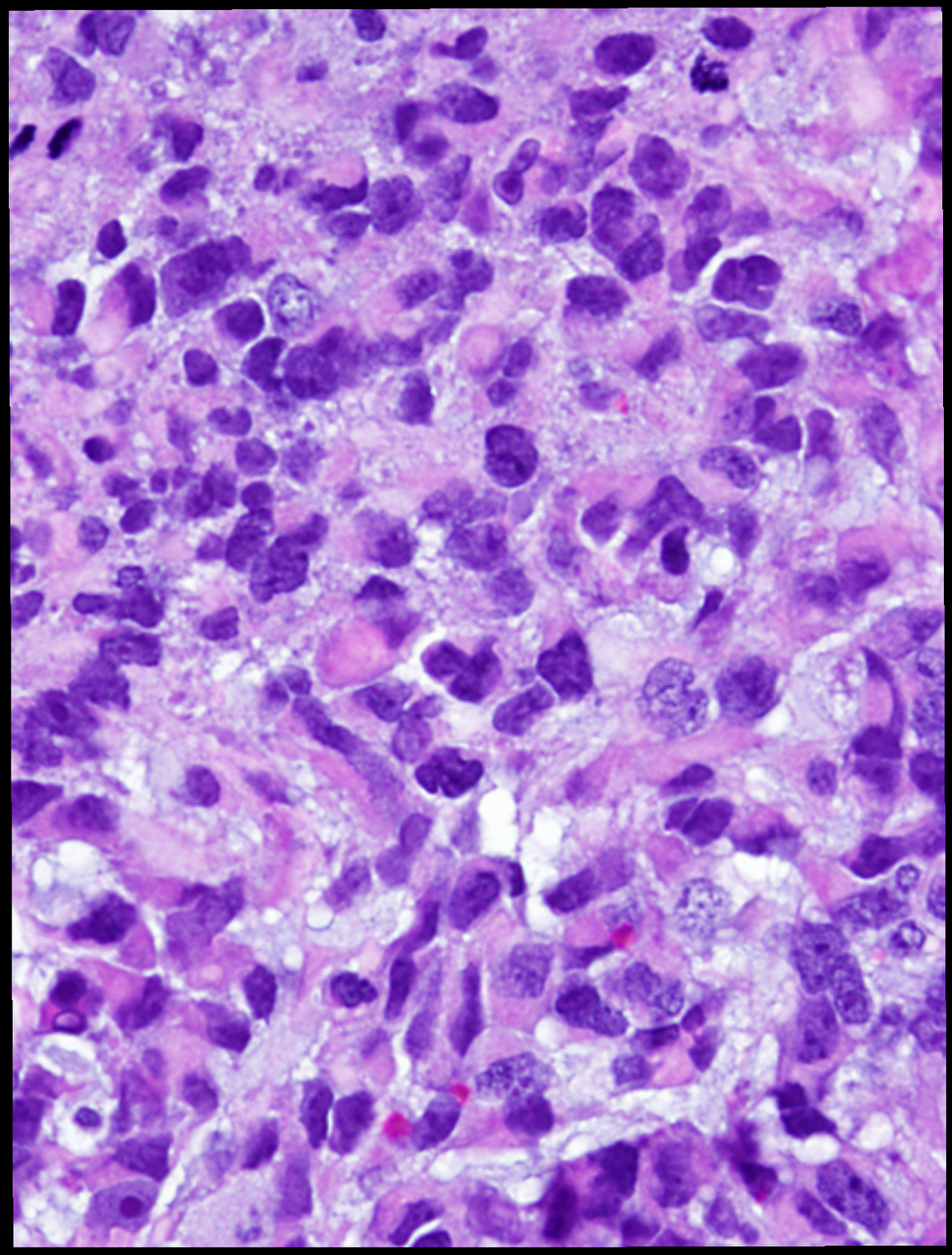


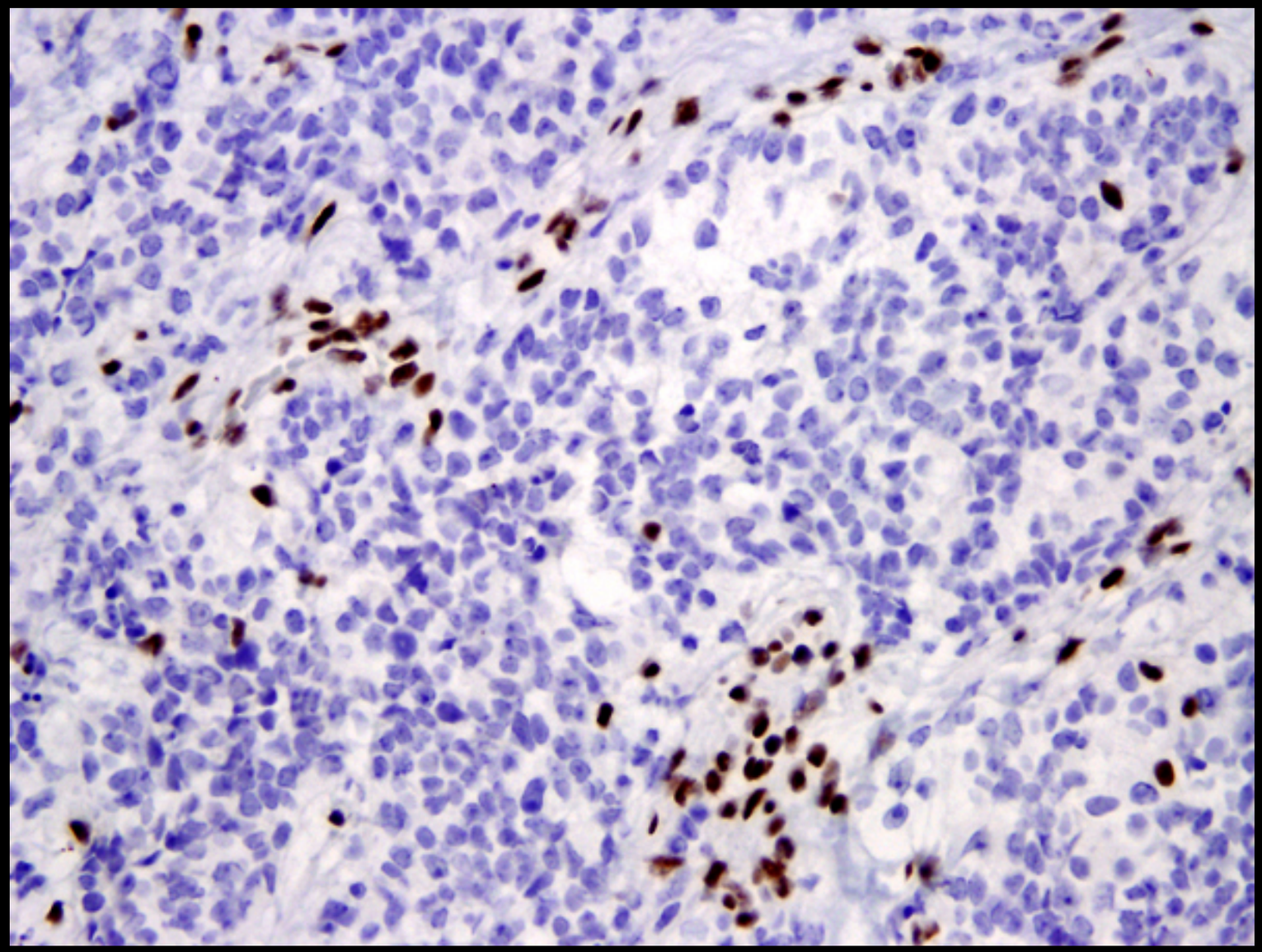


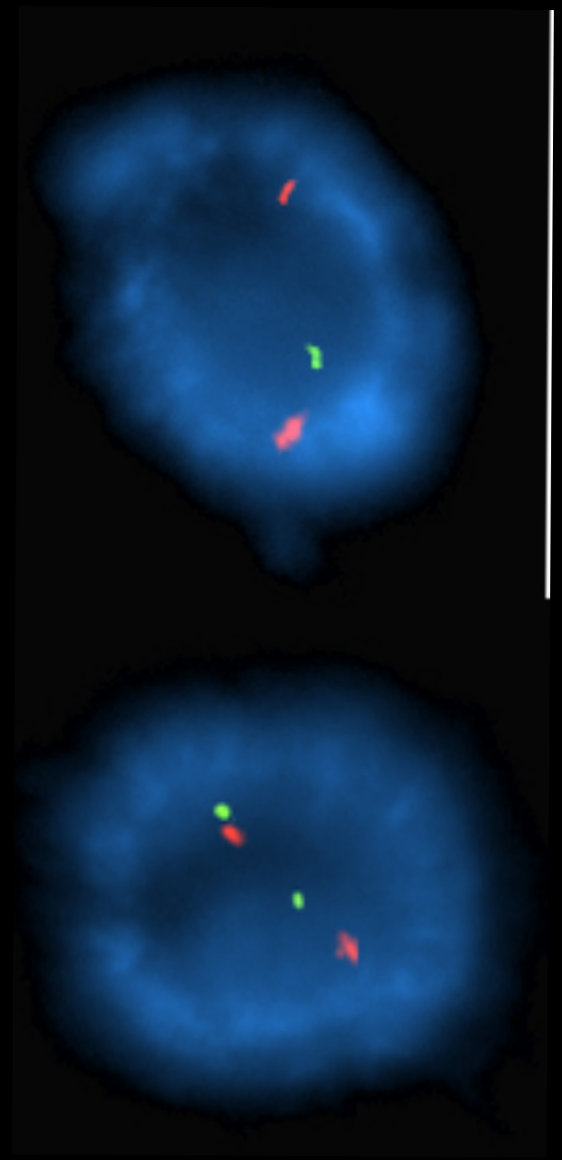


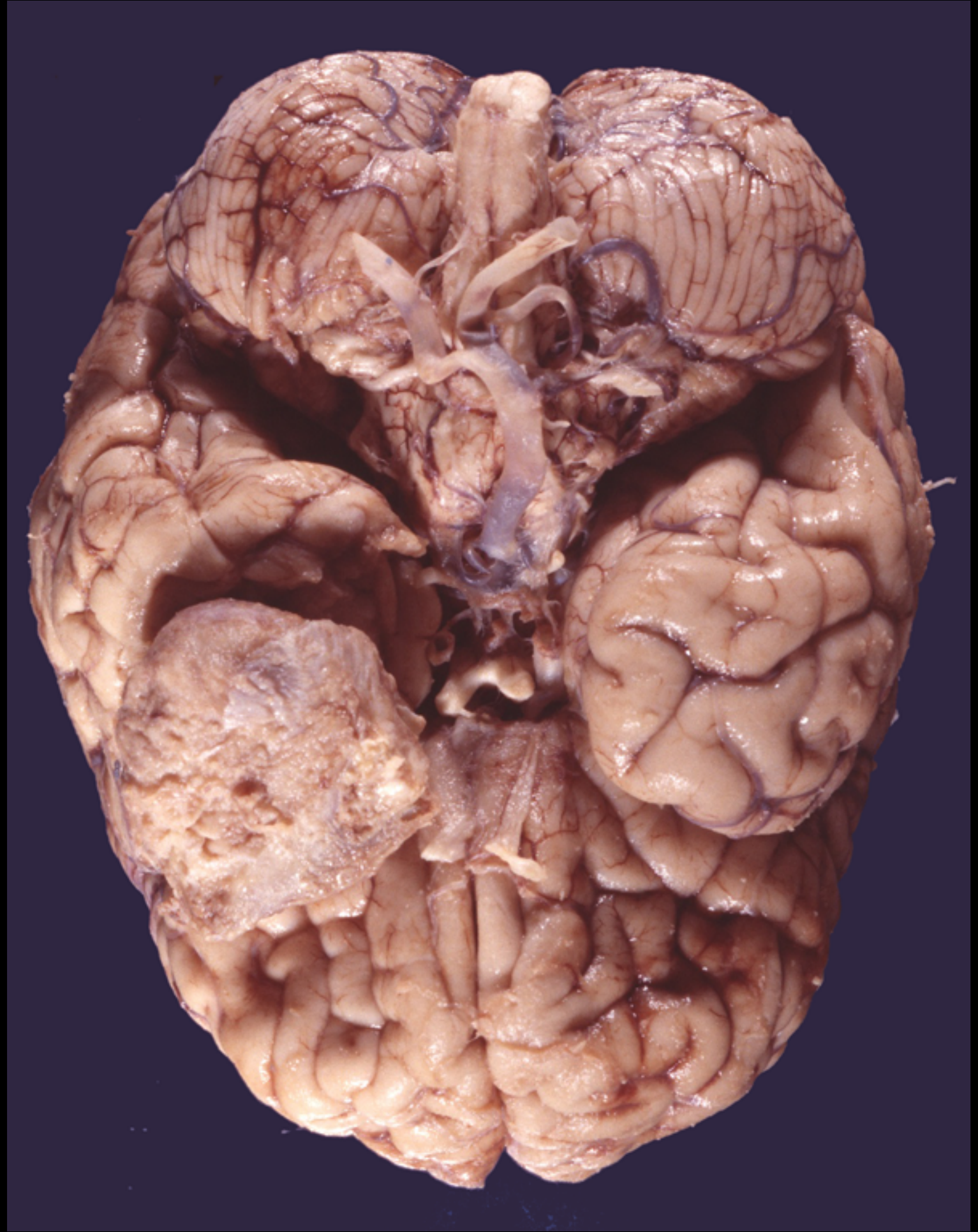


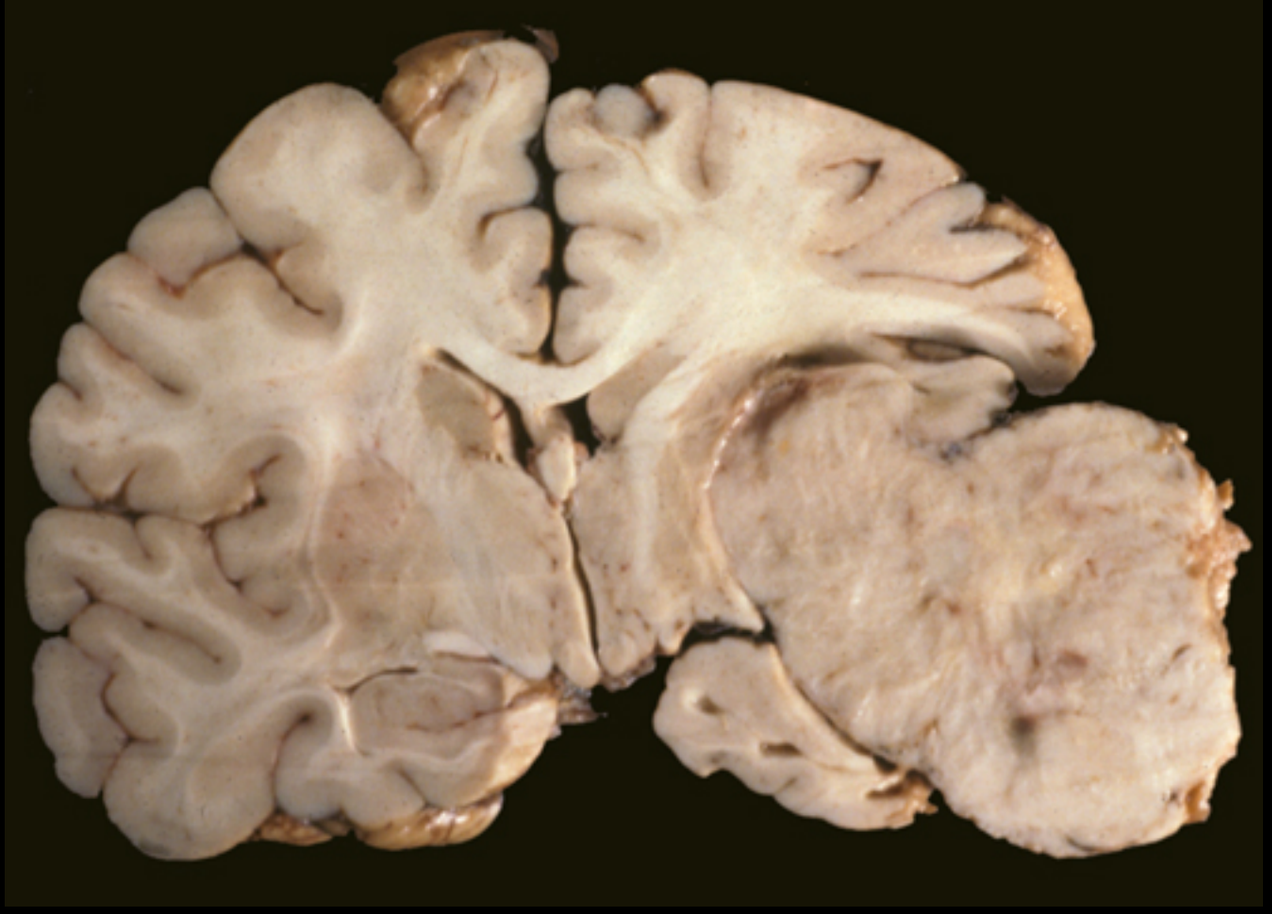


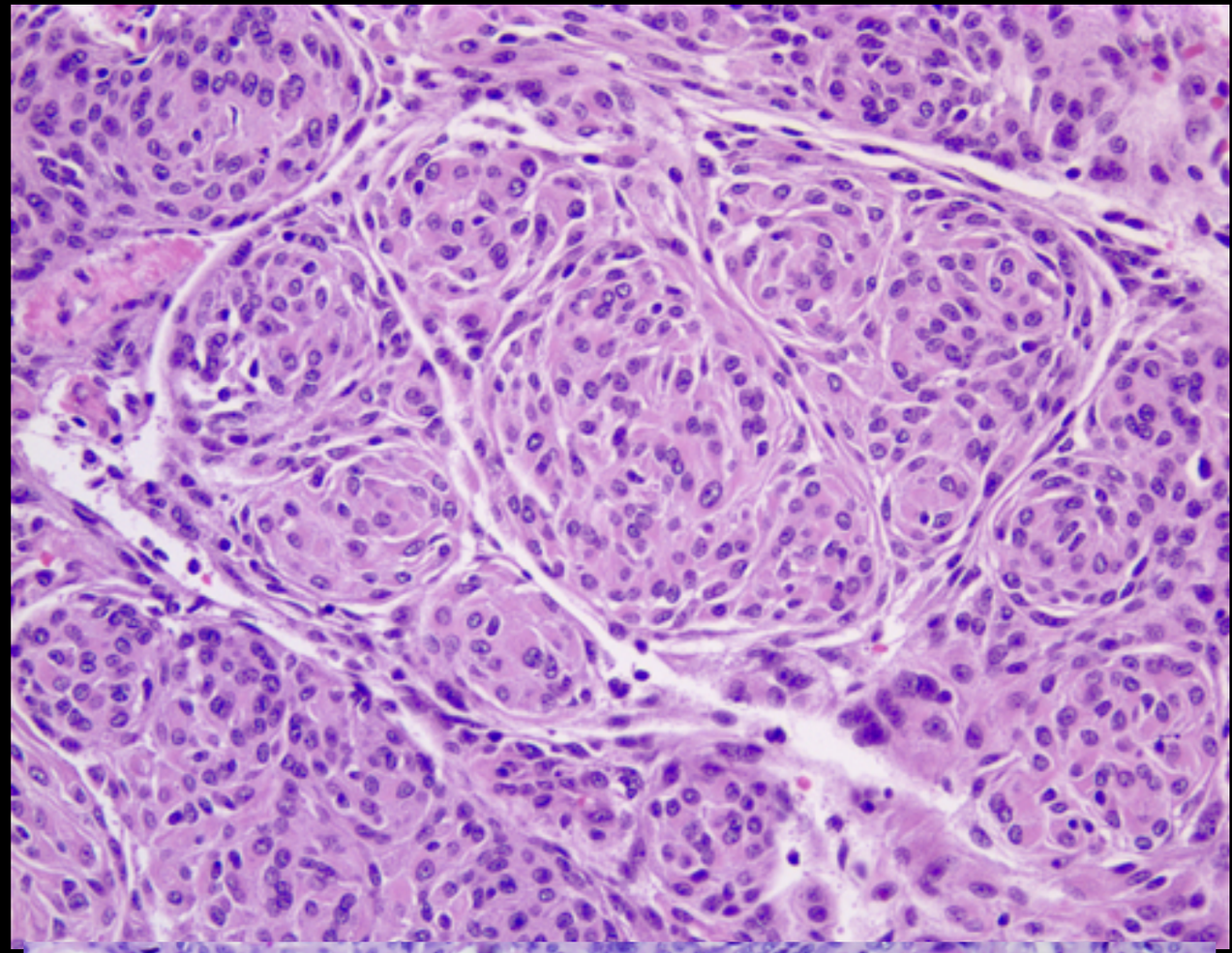


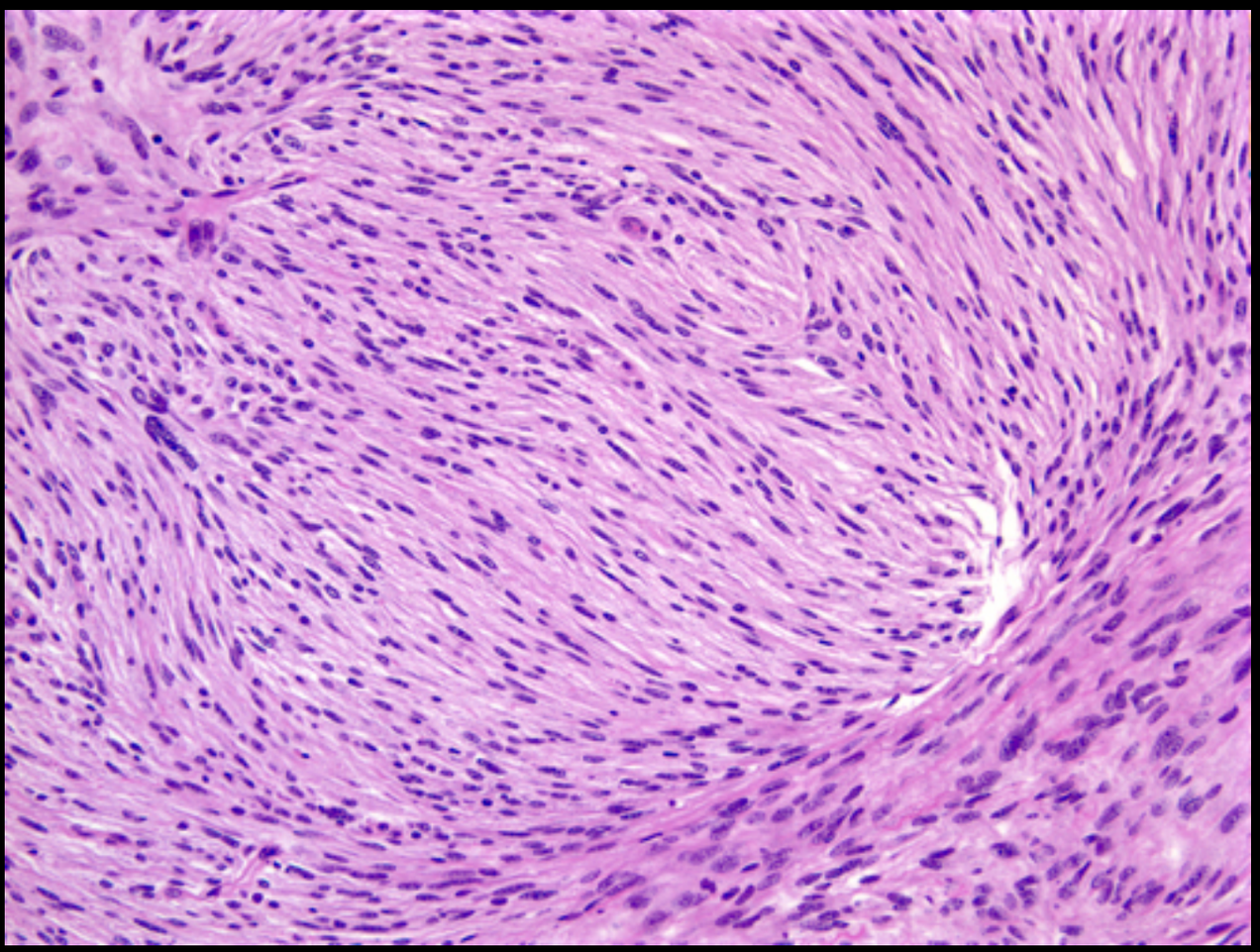


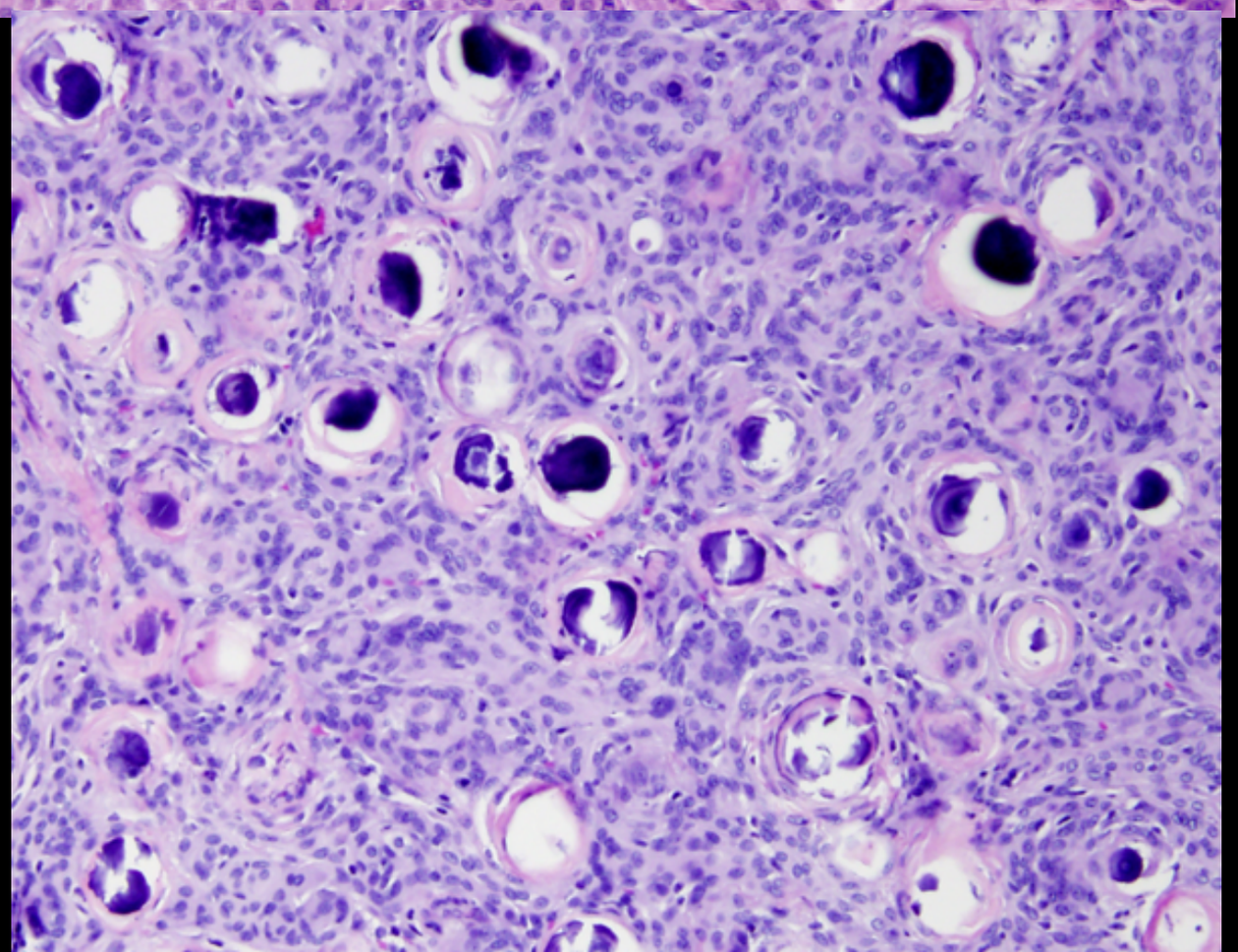


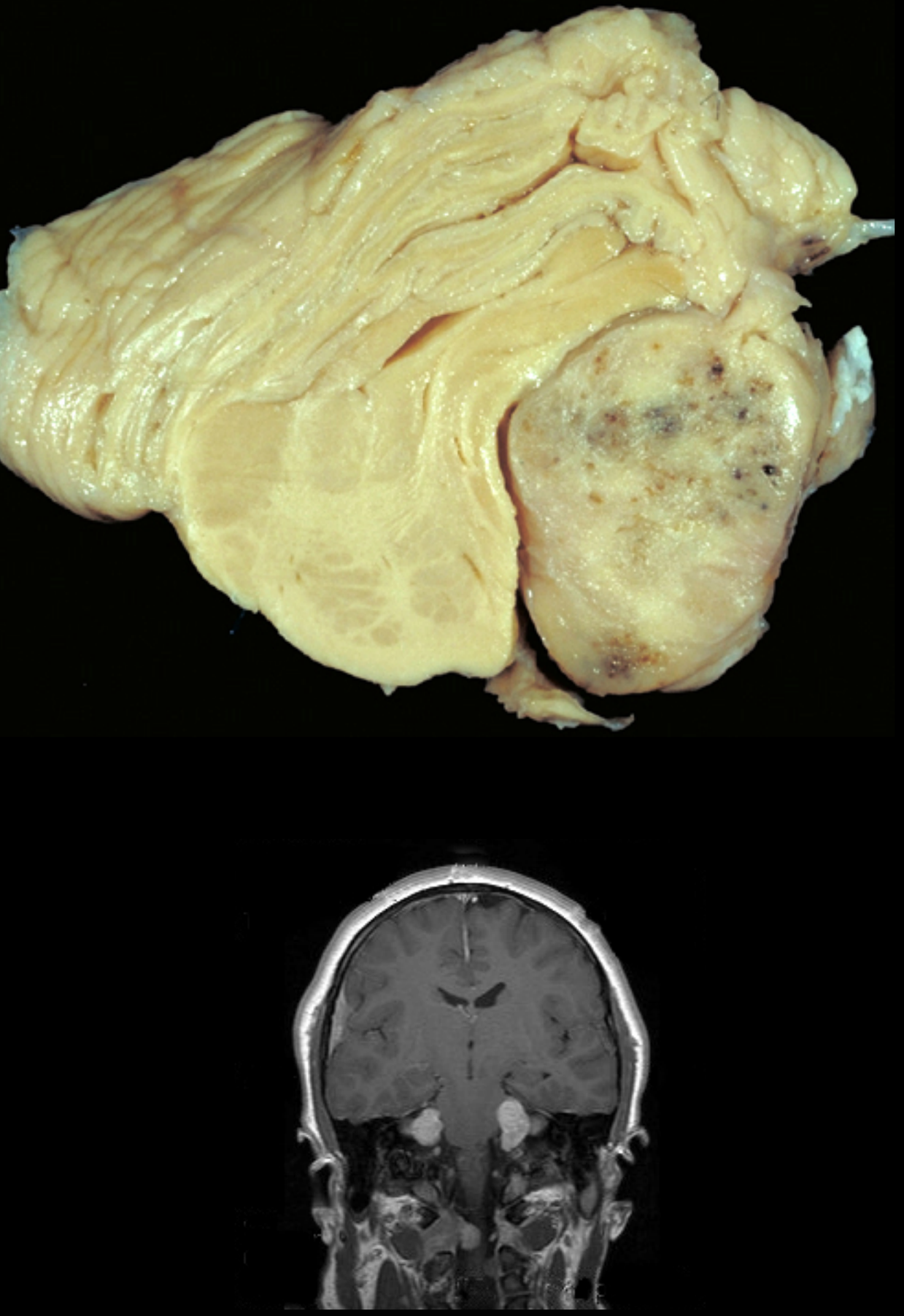


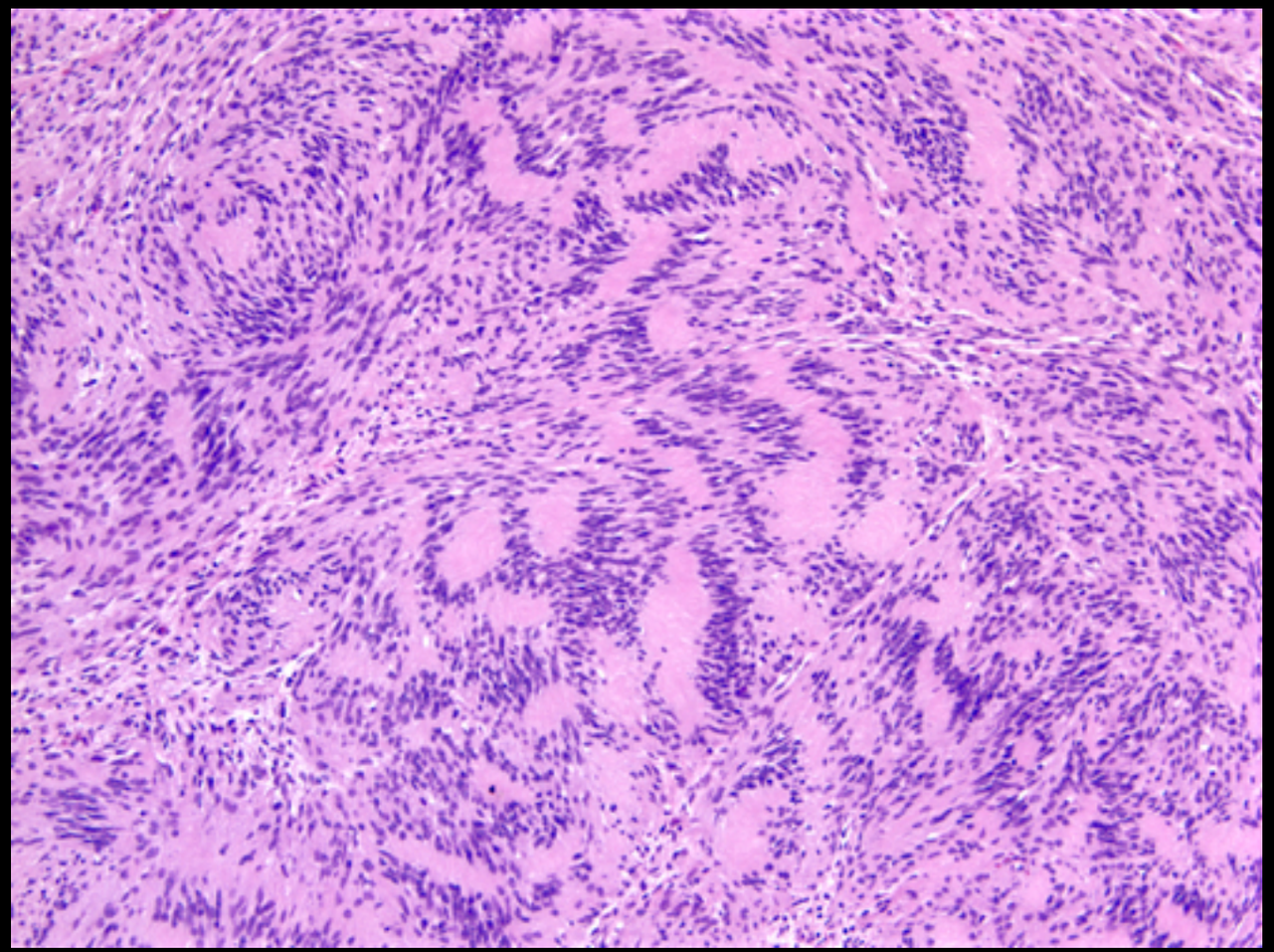


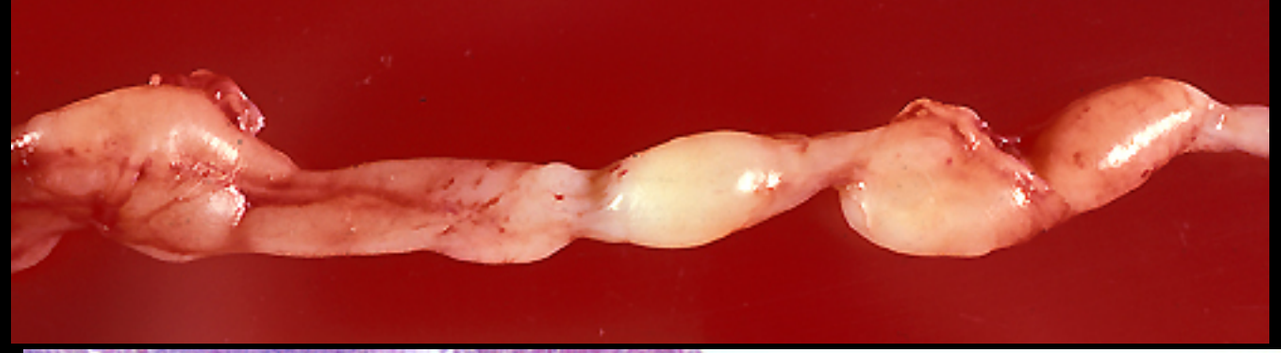


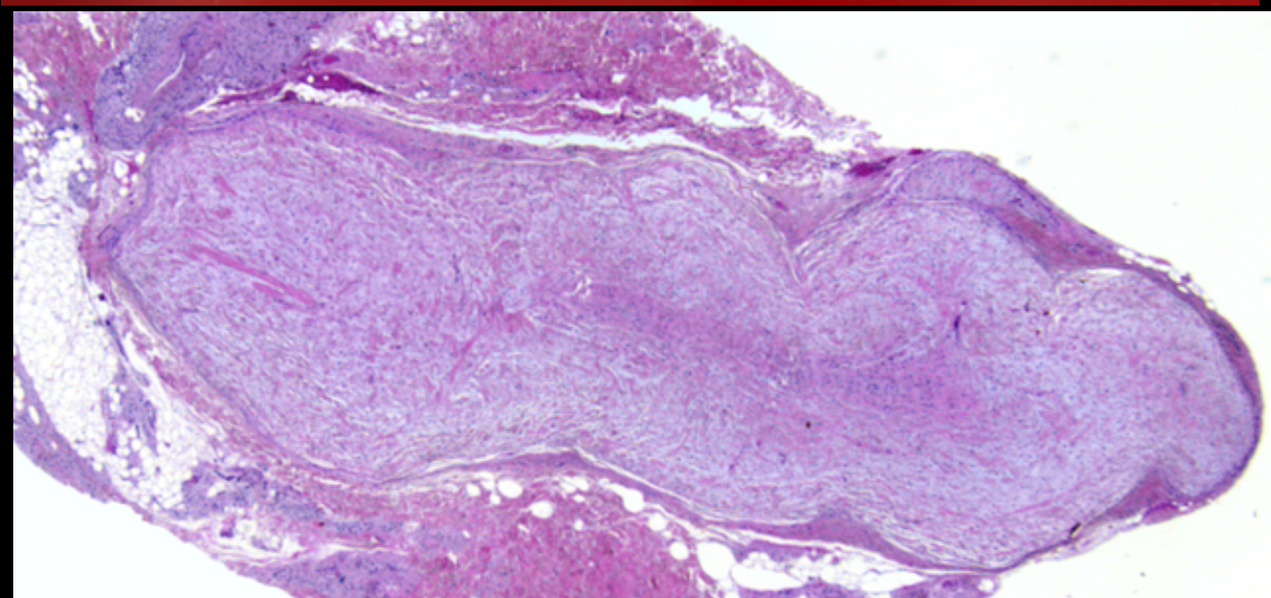


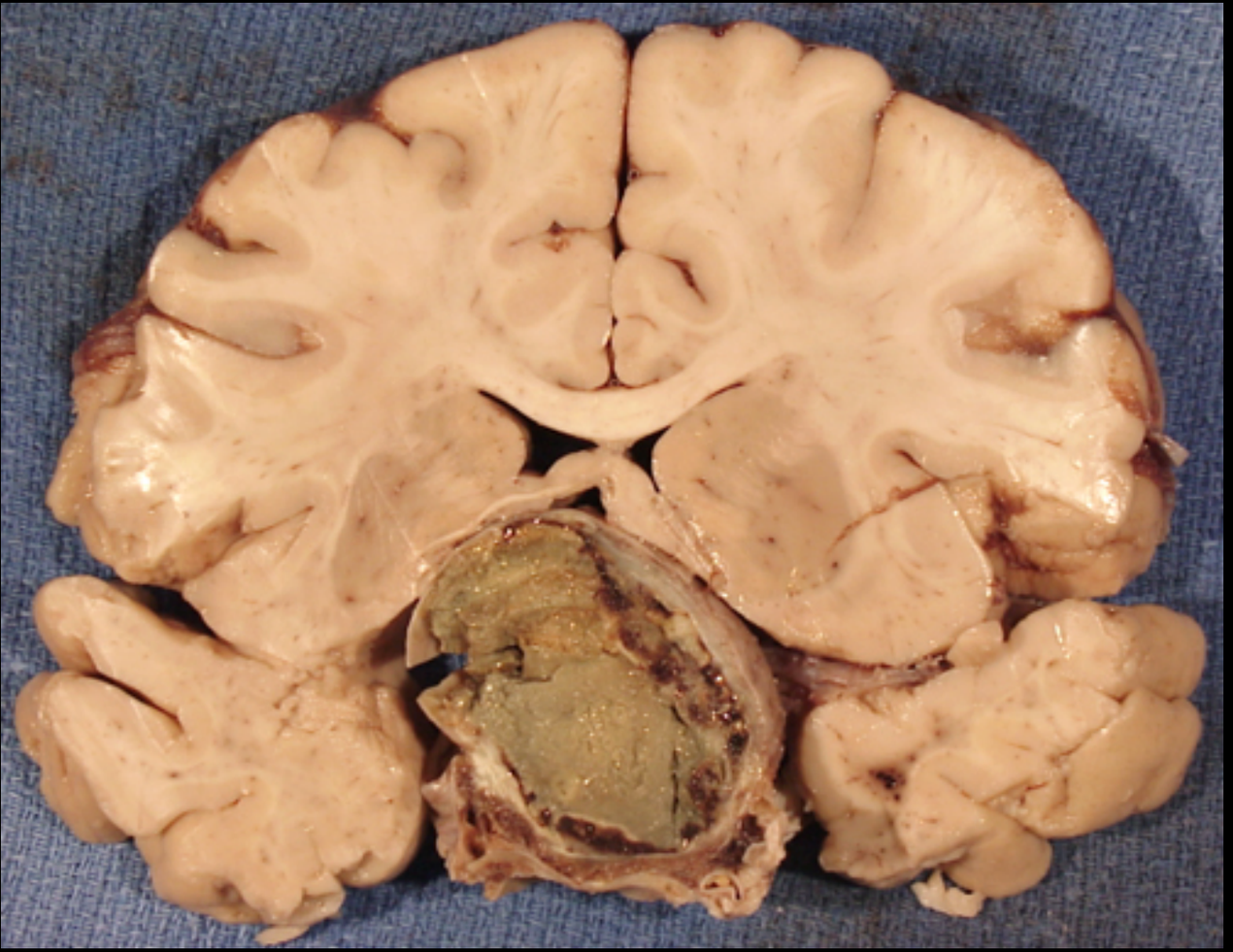


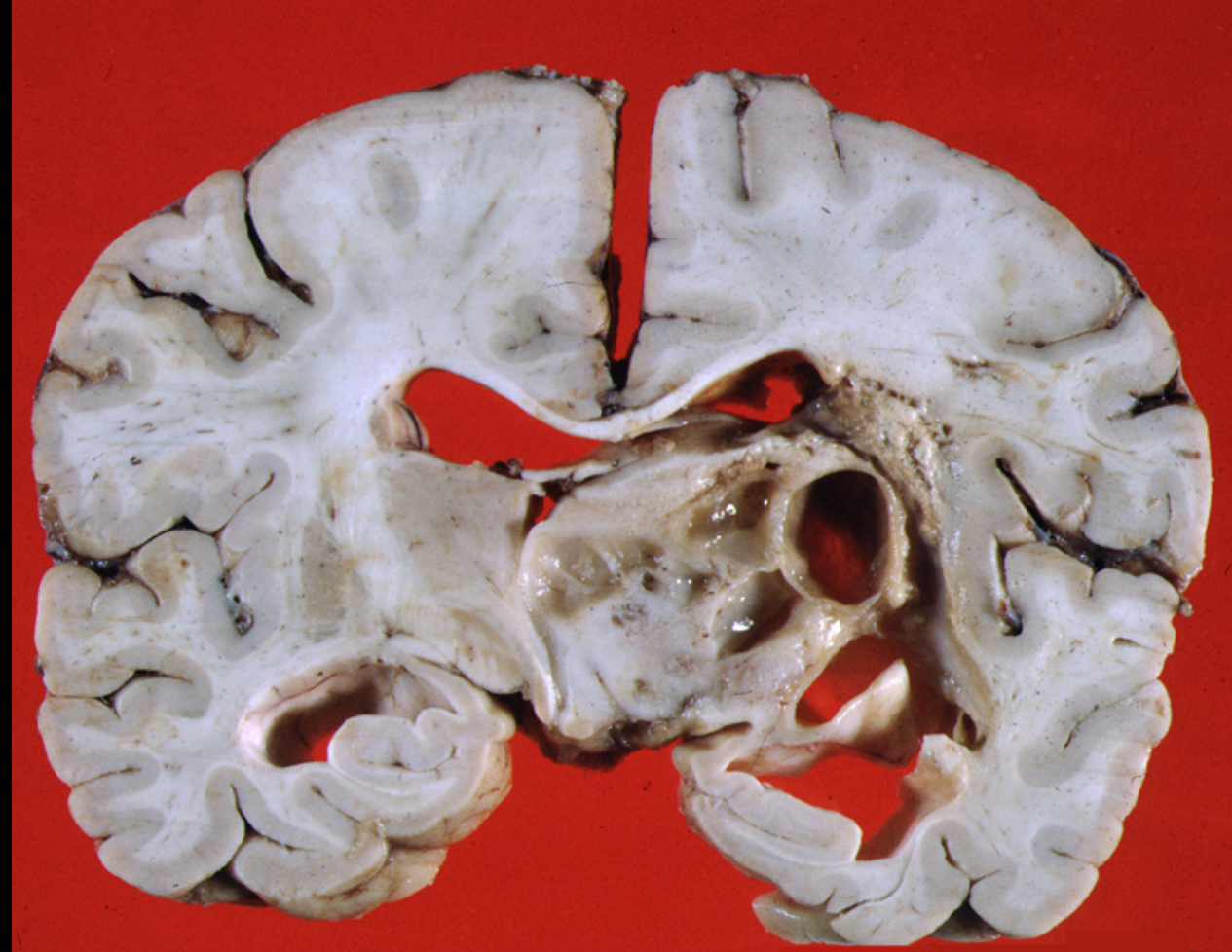


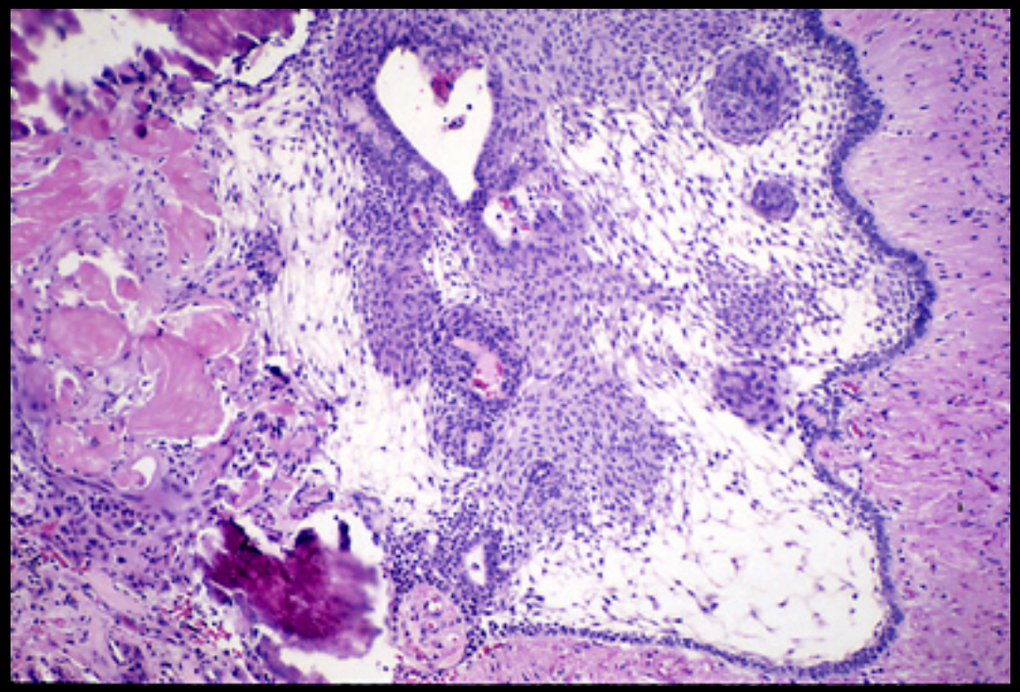


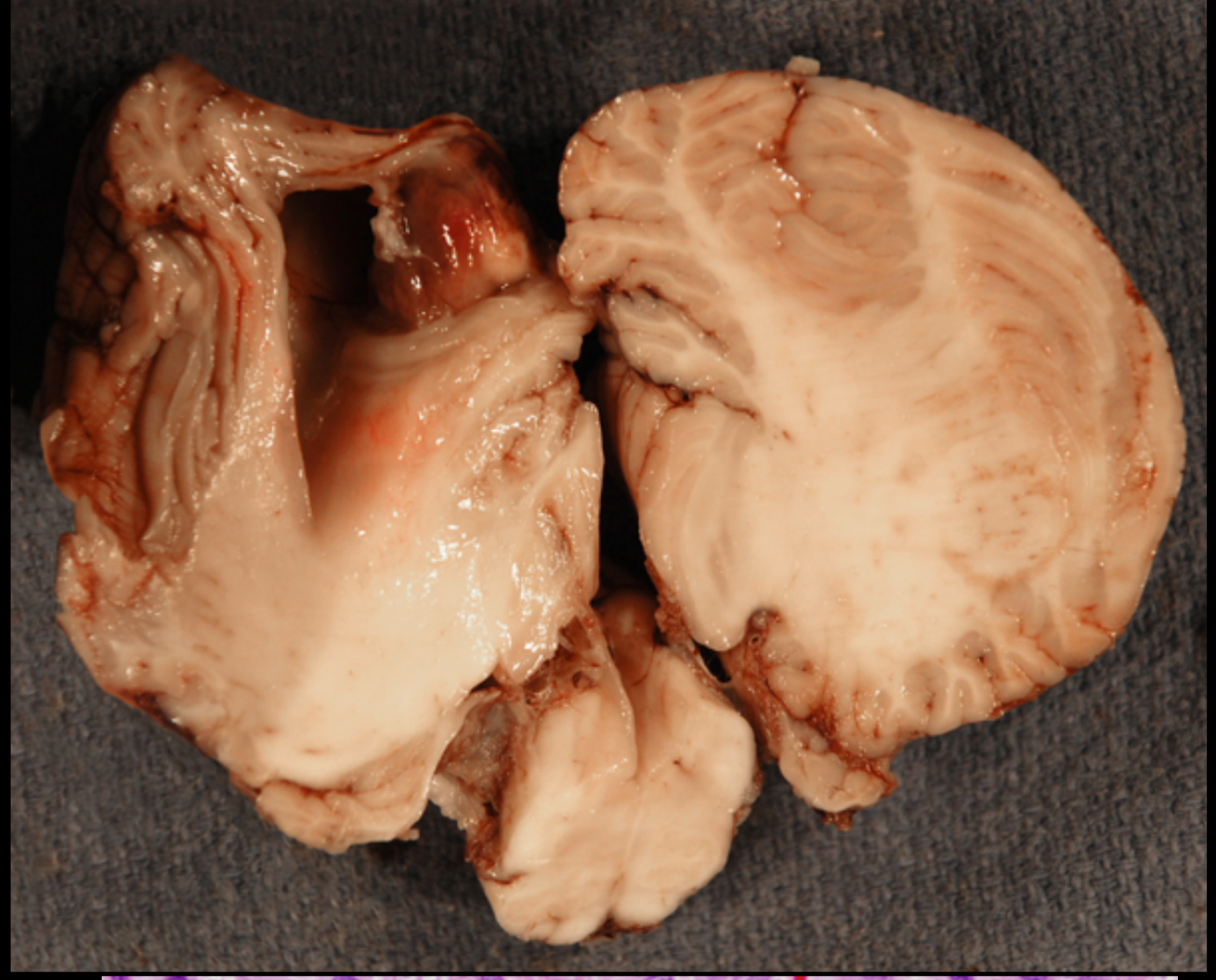


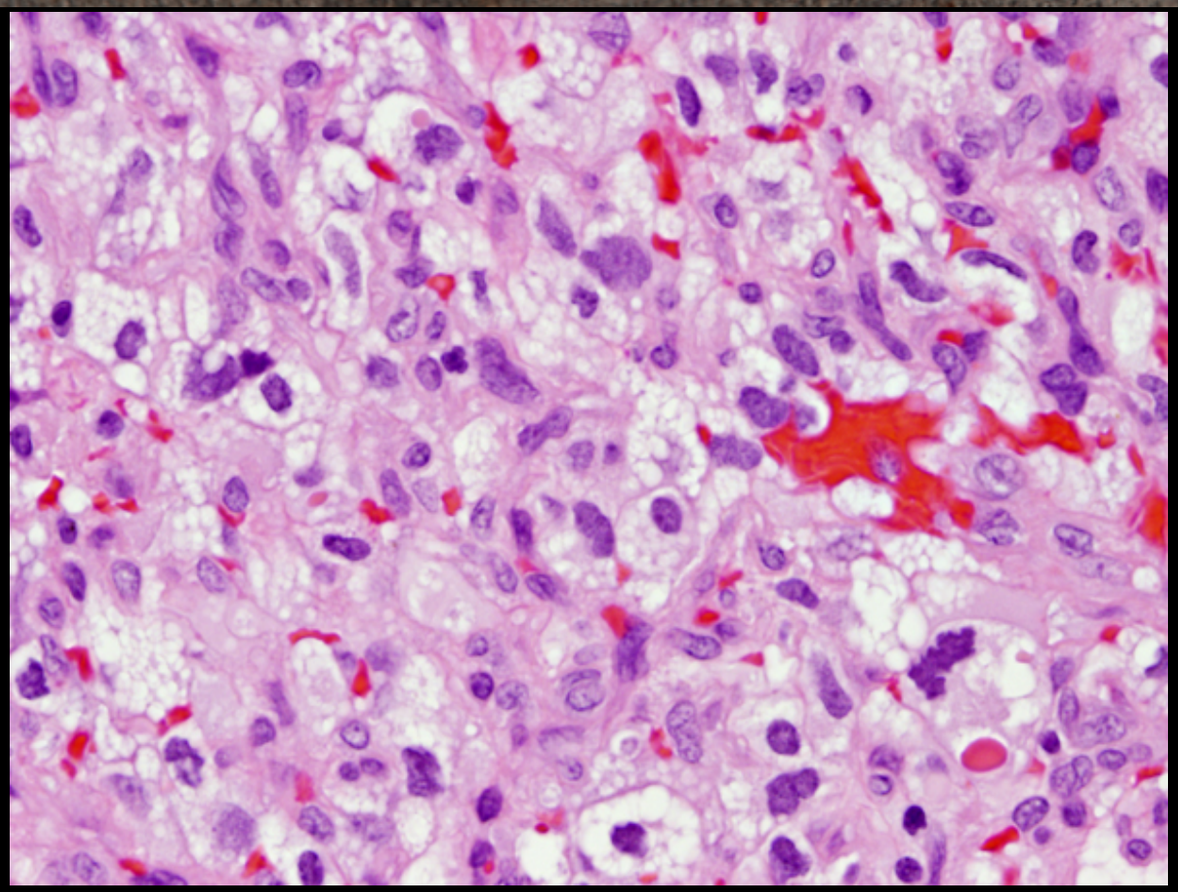


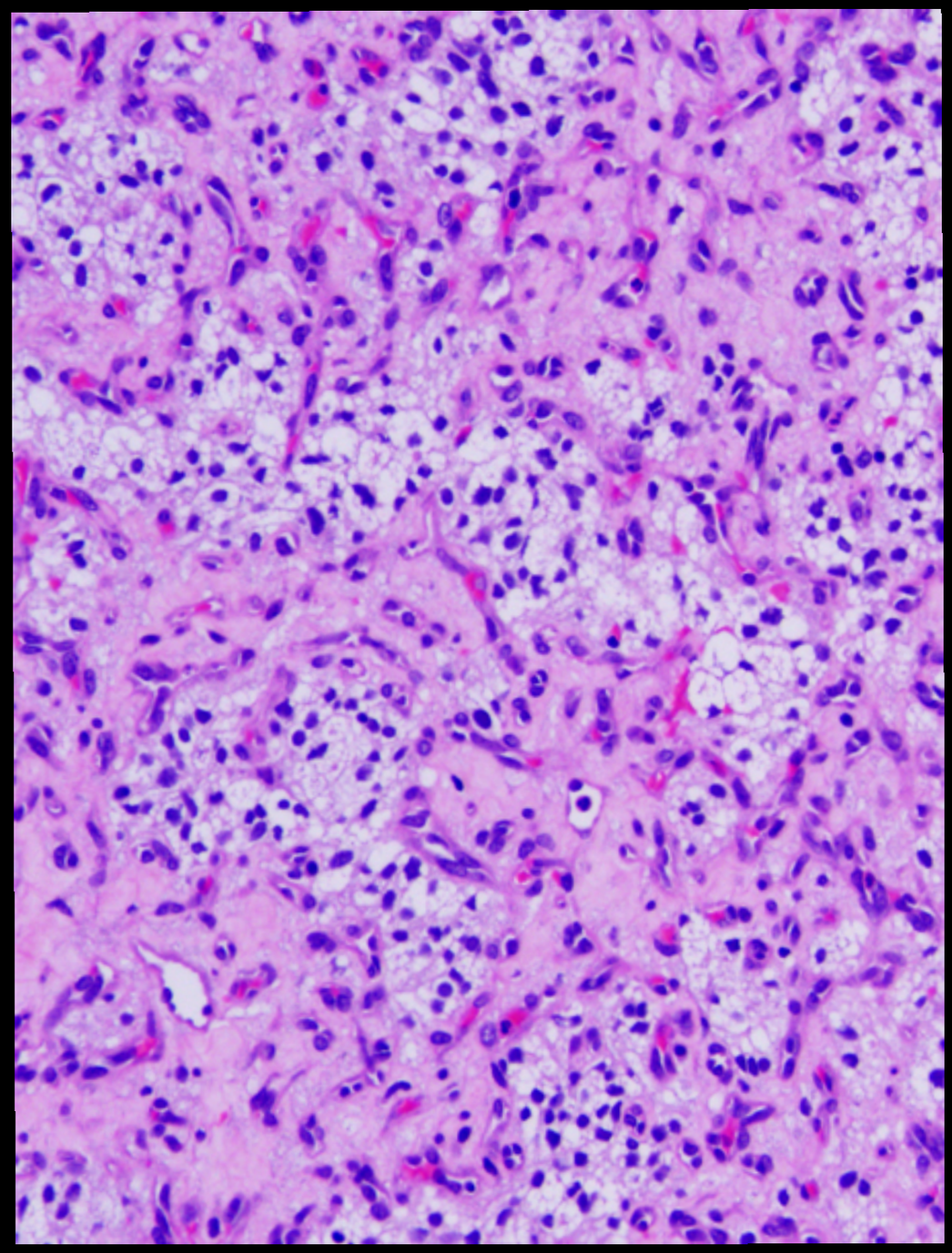


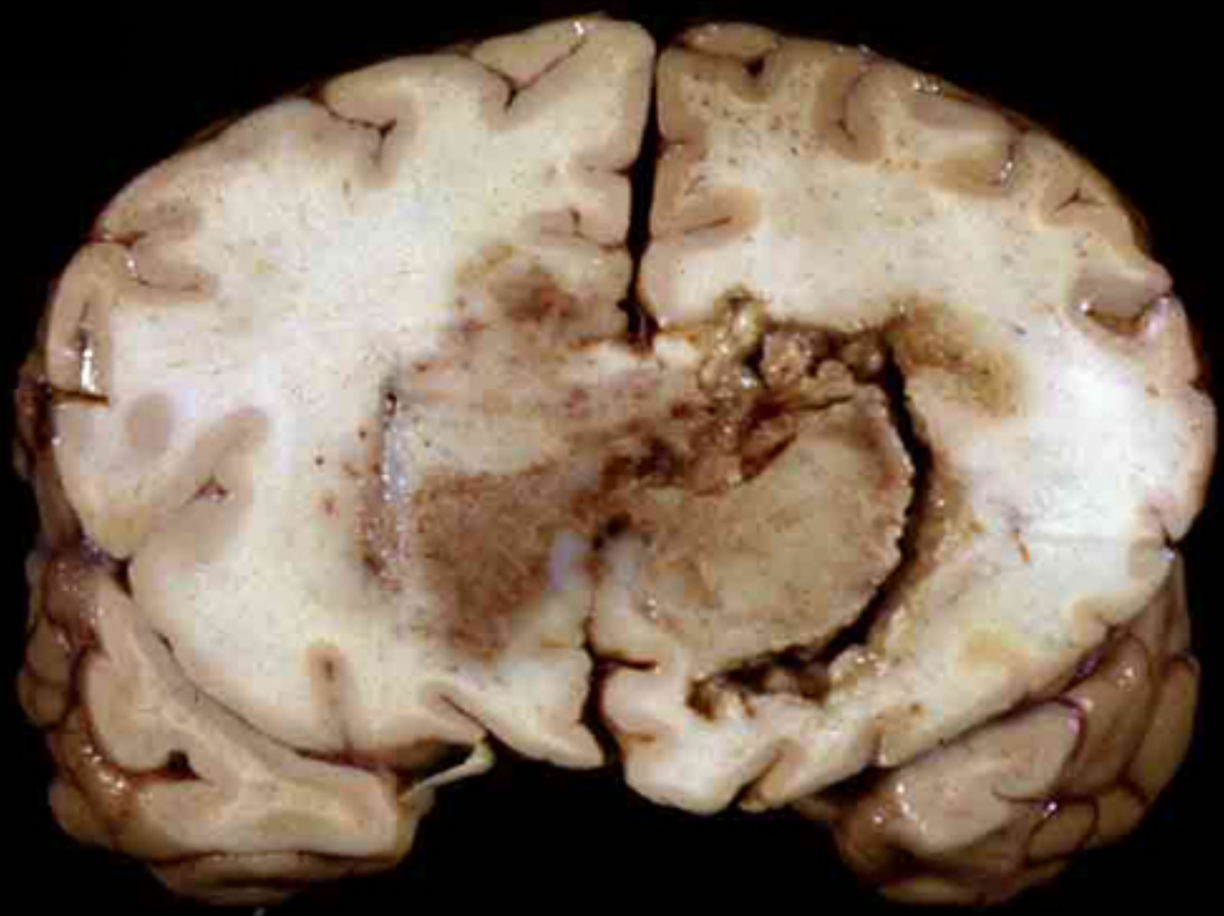


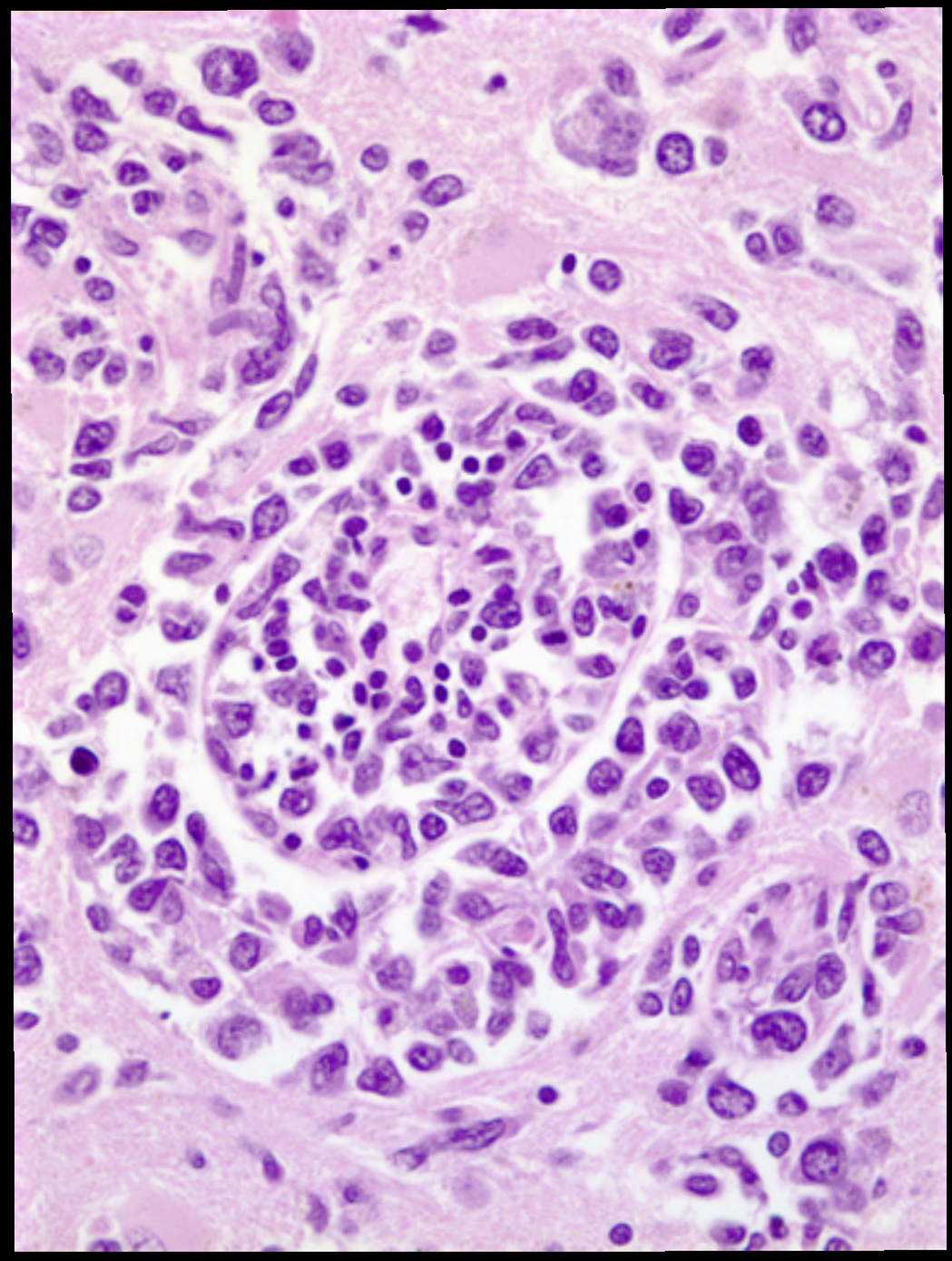


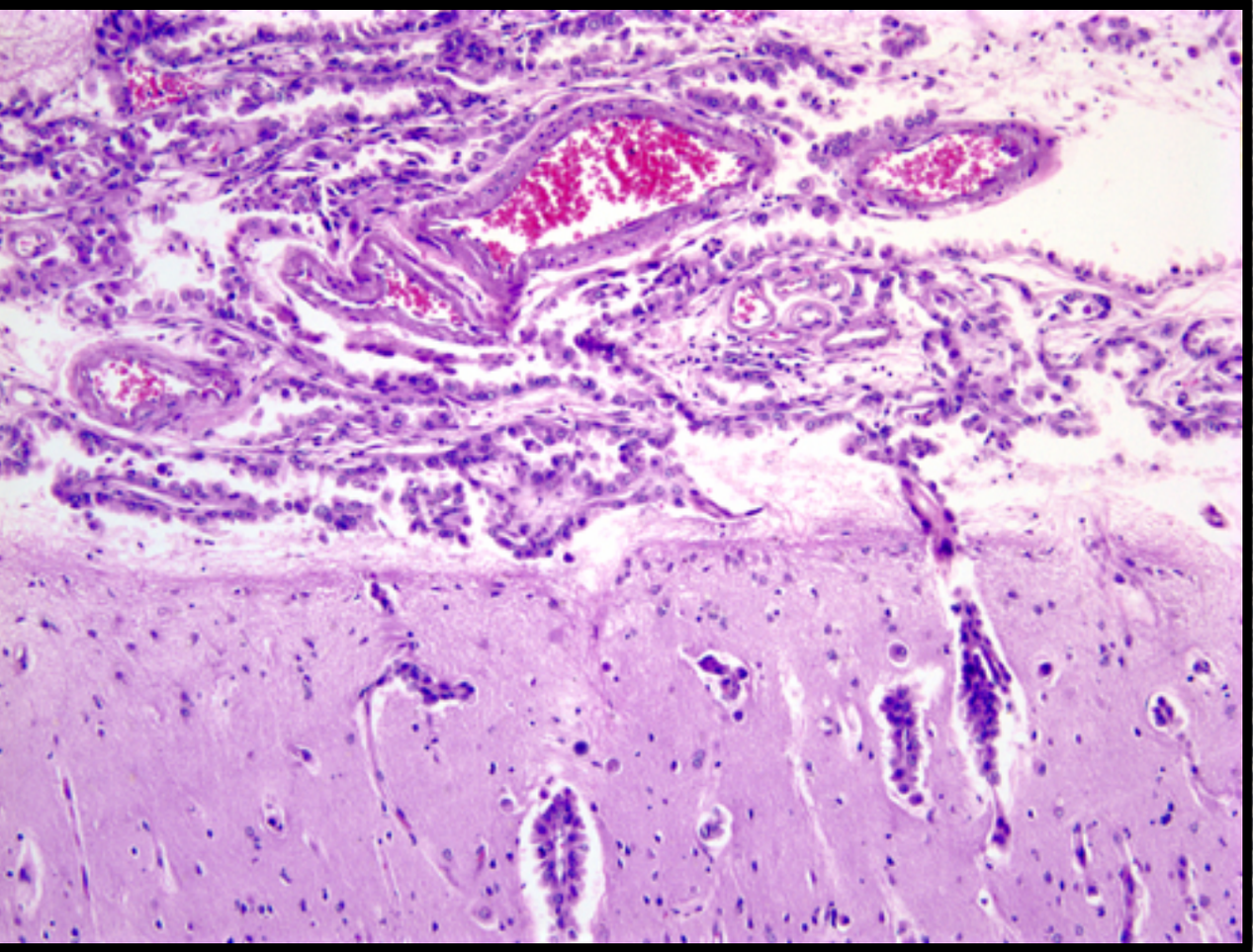


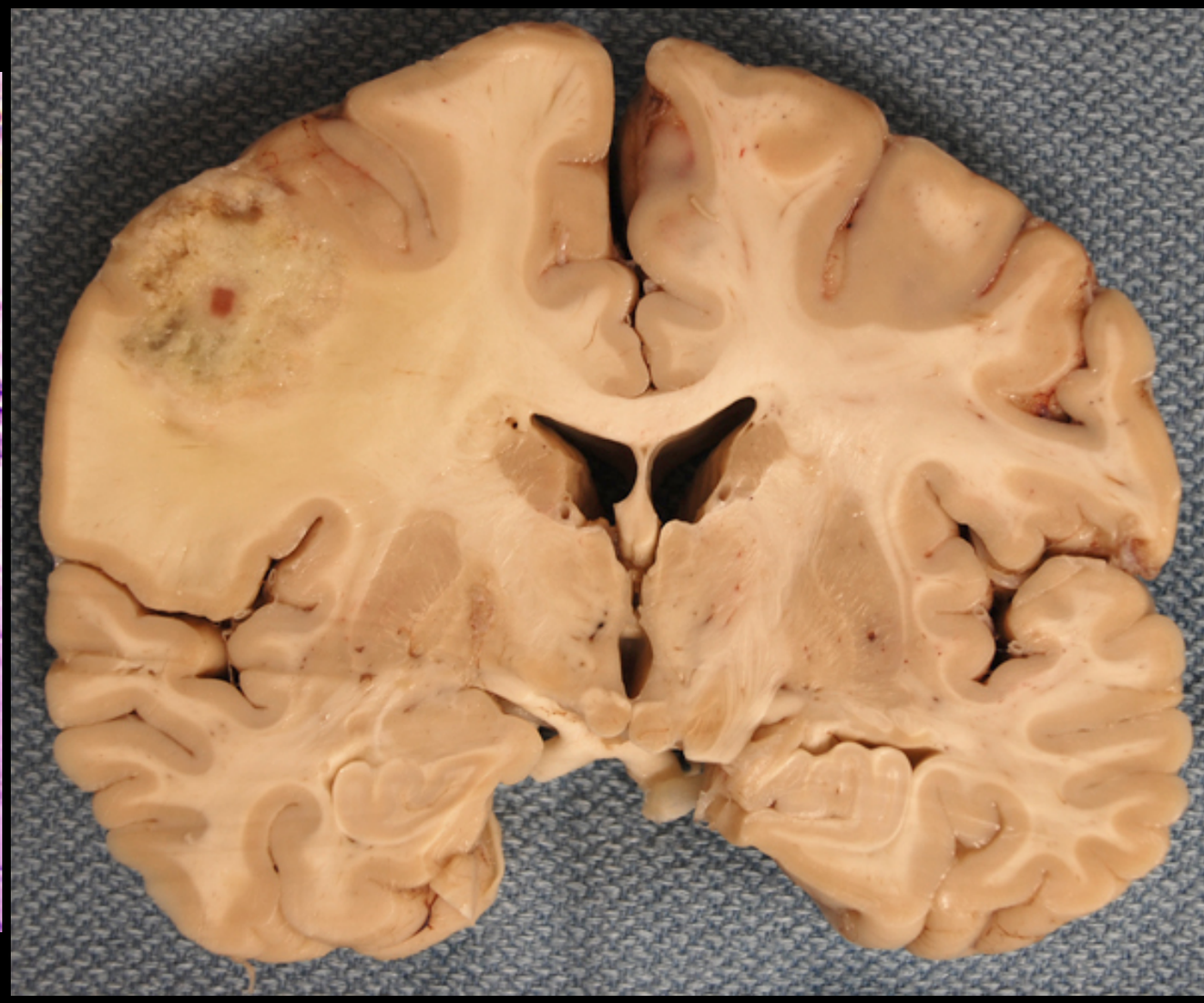












Tumores del sistema nervioso

Aspectos generales

Incidencia: 10-17/100.000 personas
La mitad primitivos y el otro 50% metastásicos
Todo tumor intracraneal es potencialmente maligno
Patrón de diseminación: a través del líquido cefalorraquídeo (LCR)
Sólo metastatizan fuera del cerebro, después de la resección quirúrgica

Gliomas

Astrocitoma

Macro: tumor infiltrante, mal delimitado, de color gris
Superficie de corte gelatinosa
Frecuentes quistes
Micro: aumento de células con polimorfismo variable
Citoplasma amplio con prolongaciones finas **(astrocitoma fibrilar)**
Células con citoplasma amplio vacuolado **(astrocitoma protoplasmático)**
Células con amplio citoplasma eosinófilo **(astrocitoma gemistocítico)**
Células fusiformes mezcladas con fibras de Rosenthal **(astrocitoma pilocítico)**
Anaplasia variable
IHQ: GFAP+
Cuatro grados:
Grado I: astrocitoma pilocítico
Grado II: aumento de células iguales
Grado III: anaplasia nuclear, mitosis, sin necrosis
Grado IV **(glioblastoma multiforme)**: anaplasia y mitosis
Proliferación vascular
Necrosis

Oligodendroglioma

5-15% de los gliomas en individuos en la 4.ª-5.ª década
Sustancia blanca
Mejor pronóstico los que tienen la t(1;19)(q10;p10)
Macro: tumores infiltrantes con quistes, hemorragias y microcalcificaciones
Micro: células redondas con citoplasma claro («en huevo frito»)
Delicada red vascular
Calcificaciones en el 90% de los casos
Mitosis, necrosis y anaplasia en los de mayor grado **(oligodendroglioma anaplásico)**

Ependimoma

En el sistema ventricular y el canal central de la médula ósea
5-10% de los tumores cerebrales
Células con núcleos redondos con fondo fibrilar
Forman rosetas y seudorrosetas (alrededor de vasos)
Algunos forman papilas con fondo mixoide **(ependimoma mixopapilar)**
Hay tambien **ependimomas anaplásicos**

Tumores neuronales

Neurocitoma central:
Situado en el sistema ventricular
Núcleos uniformes, redondos con islas de neurópilos
Diagnóstico diferencial con el oligodendroglioma
Gangliogliomas
Mezcla de células gliales y neuronas maduras
Tumor neuroepitelial disembrioplásico
Tumor de bajo grado que afecta a niños
Lóbulo temporal
Células redondas y neuronas en columnas alrededor de la lesión
Nódulos mixoides

Meduloblastoma

Tumor infantil a veces congénito
Sólo afecta al cerebelo
Maligno, aunque con supervivencias del 80% a los 5 años
Macro: en línea media
Bien delimitado
Color gris y consistencia blanda
Micro: células redondas que forman rosetas

Meningiomas

La mayoría benignos
Originados en la aracnoides
Macro: masas redondeadas y duras con tendencia a adherirse al hueso
Micro: células fusiformes **(fibroblástico)**, que forman sincitios **(sincitial)**, con células que recuerdan el epitelio de transición **(transicional)**, con cuerpos de psammoma **(psammomatoso)**, con vacuolas PAS+ (secretor)
Hay meningiomas anaplásicos de conducta muy agresiva, capaces de metastatizar

Linfomas

2% de los linfomas extranodales
Frecuentes en pacientes inmunodeficientes
Generalmente linfomas de células grandes B

Tumores de células germinales

Localizados en la línea media, especialmente en la glándula pineal
Los mismos tumores que aparecen en el testículo
Teratoma, seminoma, carcinoma embrionario...

Metástasis

Principalmente carcinomas de pulmón, mama, melanoma, riñón y tracto gastrointestinal