

# **CNS Cancer Reference Handout**

## CNS Gliomas

**Glioma Types:** [Glioma = derived from glial cell]

### Oligodendroma

Often grade II-III

Notable mutations: IDH better prognosis, 1p/19q co-deletion better prognosis

Histology: "fried egg" appearance

Imaging: Bright on flair, no contrast enhancement

### Astrocytoma

Often grade II-III

Notable mutations: IDH better prognosis, ATRX

Types: Low-grade (Grade I), diffuse (Grade II), anaplastic (Grade III)

### Glioblastoma

Always grade IV

Notable mutations: IDH better prognosis, MGMT methylation better prognosis

Histology: Necrosis, high mitotic activity, vascular proliferation

Imaging: "butterfly" pattern; ring enhancement, necrosis

### CNS Tumor Grading:

#### GRADE I:

Slow growing

Often cured with surgery alone

#### GRADE II:

Slow growing

Unlikely cured with surgery alone

#### GRADE III:

Rapidly growing

Unlikely cured with surgery alone

#### GRADE IV:

Most aggressive

## CNS Glioma: Tx

### Grade I

Surgery

### Grade II/III

**Surgery +/- Adjuvant ChemoRT**

low risk grade II tumors can observe if total resection

**1. PCV (P) Procarbazine  
(C) Lomustine  
(V) Vincristine**

**2. Temozolomide (TMZ)**

### Grade IV

**TMZ + RT**

**Other/if POD:**

**Surgery preferred:**  
usually unresectable

1. TTF "tumor treating field"  
2. Bevacizumab

## Meningioma

### General:

Non-malignant

Arise from dura brain/spinal cord

Imaging: dural tail = "lightbulb" sign

### Treatment:

Observe if small (<3 cm)

Surgical resection

Consider adjuvant RT

## CNS Lymphoma

### General

NHL, usually DLBCL

Histology: CD20+, BCL6+, MUM1+ (activated non-GC)

Imaging: Homogenous contrast enhancement

### Treatment:

HD MTX (minimum 3.5 g/m<sup>2</sup>) contraindicated in CKD

R-MPV (Rituximab, MTX, Procarbazine, Vincristine)

Steroids

RT