

# **Gliomas**

*Presented by Roger J. Packer, MD  
Children's National Medical Center  
December 2006*

## **I. Clinician View of what is a Glioma and what “pathologic” diagnosis tells us**

***A. Epidemiology - Incidence***

***B. Need for biopsy/? variants***

***C. Effect of location***

***D. Who does not need to be biopsied***

1. Brain stem
2. Chiasmatic/Visual Pathway

***E. Effect of***

1. NF1
2. Tuberous Sclerosis

***F. Diagnosis***

1. Symptoms
2. Radiographic
3. PET/SPEC

***G. Biology***

1. Know little
2. Differing from adults

## **II. Specific Tumor Types**

### **A. *Cerebellar Astrocytoma***

- 1. Symptoms/Signs**
- 2. Different Types**
- 3. Treatment: surgery**
  - a) Post-fossa mutism**
- 4. Radiotherapy/chemotherapy**

### **B. *Visual Pathway***

- 1. Symptoms/Signs**
  - a) Diencephallic**
  - b) Effect of NF**
- 2. RX**
  - a) Surgery**
  - b) RT**
  - c) Chemotherapy**
- 3. Outcome**

### **C. *Brain Stem***

- 1. Symptoms/Signs**
- 2. Classical**
- 3. Cervicomedullary**
- 4. Tectal**
- 5. Focal**
- 6. Diagnosis**
  - a) ? Biopsy**
- 7. Treatment**
  - a) Type dependent**

8. RT
9. Chemotherapy
10. Biology
11. Outcome

***D. Diencephallic/Thalamic***

***E. Cortical/Low Grade***

1. Symptoms/Signs
2. Epilepsy/? Hamatoma/DNET/DIG/Ganglioglioma
3. Treatment
  - a) Early vs late surgery
  - b) Early vs late RT
  - c) Chemotherapy

***F. High-grade***

1. Symptoms/Signs
2. Biology
3. Surgery
4. RX-surgery
  - a) RT
  - b) Chemo
  - c) Biology

5. Outcome

***G. Spinal Cord Tumors***

1. Diagnosis
2. Treatment

***H. Rare Infant***

1. DIG/Ganglio

2. PNET
3. Xanthoastrocytoma
4. Astroblastoma

*1. Long-term*

1. Effect of RT
2. Cognition
3. Endocrine
4. Etc...