

CNS TUMOR

Classification of CNS tumors

(A) Tumors of neuroepithelial tissue:

- (1) Glial tissue (Gliomas);
 - (a) Astrocytes (Astrocytoma)
 - (b) Oligodendrocytes (Oligodendrocytoma)
 - (c) Ependymocytes (Ependymoma)
 - (d) Mixed gliomas (oligoastrocytoma)
- (2) Neurons (Gangliocytoma)
- (3) Pinealocytes (Pineocytoma)
- (4) Embryonal tumors (Medulloblastoma)
- (5) Choroid plexus (choroid plexus papilloma)

(B) Tumors of Meninges (Meningiomas)

(C) Tumors of cranial and spinal nerves:

- (1) Schwannoma (acoustic neuroma)
- (2) Neurofibroma

(D) Germ cell tumors (Teratoma)

(E) Cysts and tumor-like lesions:

- (1) Dermoid
- (2) Epidermoid
- (3) Colloid cyst

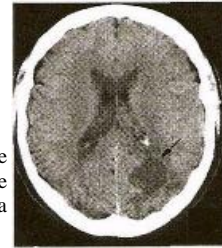
(F) Tumors of sellar

region:

- (1) Adenohypophyseal cells (Pituitary adenoma)
- (2) Craniopharyngioma

(G) Metastatic tumors

Brain CT scan shows Lt. occipital hypo dense mass lesion (tumor) surrounded by hypo dense area (edema)



Brain MRI, T2 phase, shows Rt. temporo-occipital hyper intense mass lesion (tumor) surrounded by hyper intense area (edema) with mild midline shift to the Lt. side



Dorsal sagittal MRI, T2 weighted image demonstrates a large oval-shaped hypointense lesion which is capped by hyperintense CSF in dorsal subarachnoid space.



Clinical Features

- (1) For Brain tumors; there may be clinical Features of raised intracranial pressure and/or clinical features of brain herniation.
- (2) Specific clinical Features according to tumor type and its location

Imaging

The tumors by CT scan or MRI appear as mass lesions with or without surrounding **edema**, and in case of brain tumors; possibly associated with some degree of brain shift (**herniation**) and/or possibly complicated by **hydrocephalus**.

Treatment

- (A) **Conservative:** just observation and follow-up by periodic CT scan or MRI (like in low grade glioma in patient without neurological deficit).
- (B) **Surgery** with or without radio or chemotherapy.
- (C) **Radiotherapy**
- (D) **Chemotherapy**