MANAGEMENT OF INTRACRANIAL TUMOURS:

Intracranial tumours present in one of the following ways:

1. Symptoms of raised intra-cranial pressure:
   a) Headache and vomiting worse in the morning or bending forwards
   b) Double vision due to 6th nerve palsy
   c) Loss of vision
2. Gradually progressive neurological deficit depending on the location of tumour example:
   a) Visual field defect in occipital lobe tumours.
   b) Personality changes in frontal lobe tumours
   c) Progressive hemiparesis in posterior frontal tumours near the motor strip.
   d) Foot drop in parasagittal meningioma.
   e) Unsteadiness of gait due to cerebellar tumour or hydrocephalus due to such tumour.
3. Seizures; May also differ according to the location
   a) Sensor seizures in parietal lobe tumours (sensory strip)
   b) Visual seizures in occipital lobe tumours – non formed images or flashes of light
   c) Temporal lobe seizures- Autonomic seizures i.e., Deja vu, dreamy states
   Partial complex seizures
   Absence seizures
   Complete tonic clonic seizure preceded by an aura and followed by loss of consciousness.
4. Stroke: A bleed in the tumour may present like a stroke.
5. Pituitary tumours may present as
   a) Visual loss or visual field defect
   b) Endocrine hyper secretion syndromes i) Galactorrhoea/amenorrhoea syndrome ii) Cushing’s syndrome iii) Gigantism or acromegaly
   c) Pituitary apoplexy.

Management:

Detailed history taking is essential to establish where the tumour might be. Please take the history of any previous primary tumour anywhere else in the body as metastatic tumours are the most common posterior fossa tumours in adults. Must take a history of any anticoagulation or Aspirin as this may affect any potential surgery.
Take any history of fits.
Take the history to rule out any hyper-functioning pituitary tumour.

Examination of the patient must be detailed including:

1. Higher mental functions including gait and speech.
2. Detailed cranial nerve examination including Optic nerve function i.e., V/A, V/F, pupils, and fundi (for papilloedema). 6th nerve palsy may be a false localising sign.
3. Motor system examination.
4. Sensory examination.
5. Cerebellar signs
6. Parietal lobe signs
7. Frontal lobe signs.

Investigations:

1. Bloods
   FBC, U&Es, Coagulation screen (in case the patient needs surgery).
2. X-ray chest to rule out primary tumour
3. ECG as a pre-op investigation
4. MRI scan of the brain with and without contrast is the investigation of choice.
5. If suspecting a metastatic tumour please also arrange a CT scan of chest, abdomen and pelvis
6. PSA and prostate examination in males
   1. 7. Breast examination in females.

**Medical management:**
1. Start the patients on steroids i.e., Dexamethasone 4mg 6 hourly.
2. Tab Phenytoin 300mg at bed time.
3. Tab Omeprazole 20mg at bed time.
4. If Pituitary tumour diagnosed please contact the endocrine team. Please see
   APPENDIX 6 for patent pathways for pituitary tumours.
5. Inform your Consultant regarding the patient.
6. Inform Mr Ian Edwards, the neuro-oncology nurse to make him aware of the patient so that the case
can be discussed in the weekly neuro-oncology MDT.

**Surgical management: Could be**
1. Craniotomy for total excision of tumour i.e., convexity meningioma or cerebellar metastatic tumours
   which can be completely excised.
2. Craniotomy for debulking of intrinsic tumour for gliomas in temporal or frontal lobe.
3. Burr hole biopsy only (stealth guided or stereotactic) (deep seated intrinsic tumours.
4. Trans-sphenoidal resection of pituitary adenoma either endoscopic or microscopic.
   2. 5. Inoperable tumour.