**Spinal cord tumours:** Spinal tumours are classified into intradural and extradural. Intradural tumours are classified into extramedullary and intramedullary

**I. Intradural extramedullary**: 2/3 of all tumours

1. **Nerve sheath tumours** (schwannoma, neurofibroma and malignant nerve sheath tumour) 40%. Usually from dorsal nerve root and located posteriolaterally, 80% intradural, 10% extradural and 10% dumbbell. Iso or hypointense on T1, hyperintense on T2, heterogenous enhancement( haemorrhage ,cyst) Treatment is total removal through laminectomy+_ facetectomy. 1% intramedullary. 2.5% malignant (poor prognosis with survival < 1 year). Present with radiculopathy and myelopathy

2. **Meningioma**: 40%. 80% female, 80% thoracic age 50-70, microcalcification is common (psammoma bodies). Foramen magnum and cervical lesions tend to be ventral. Isointense on T1 and T2 with homogenous enhancement Foramen magnum lesions may have peculiar presentation (suboccipital headaches from C-C2 root involvement, weakness and atrophy of intrinsic muscles of the hand ? venous insufficiency ). Treatment is total excision through posterior approach. Recurrence is 10% at 10 years. The management of dural origin is controversial. No difference between excision of the origin or burning it in terms of recurrence.

3. **Filum terminale ependymoma** 10% . Myxo papillary is the most common variant .Hyperintense on T1 and T2 with heterogenous enhancement. Differential diagnosis includes astrocytoma, Ganglioglioma, oligodendroglioma. High incidence of CSF dissemination (MRI cranio-spinal axis). Small and medium lesions should be treated by en bloc resection, large lesions by piecemeal resection. RT is given for recurrent disease after second surgery and for large residual tumours.

4. **Miscellaneous** 5 %( dermoid, epidermoid, teratoma, lipoma, neuroenteric cysts, arachnoid cysts, paraganglioma, ganglioneuroma, and inflammatory lesions abscess, tuberculoma, and sarcoidosis.

II. **Intradural intramedullary**:

1. **Ependymoma**; The most common intramedullary tumour in adults, mostly cervical or cervicothoracic, not encapsulated but almost always demarcated with good plane of cleavage, hypointense on T1 and hyperintense on T2 with uniform enhancement, commonly associated with syrinx the most common type is cellular variant. Treatment is surgical resection with F/U MRI. Redo surgery for recurrence followed by radiotherapy (the effect of radiotherapy is variable)

2. **Astrocytoma**; The most common intramedullary tumour in children , 90% of tumours in children younger than 10 years and 60% of tumours in adolescents, hypointense on T1 , hyperintense on T2 with heterogeneous enhancement, commonly associated with syrinx. Variable plane of cleavage between the tumour and the cord, generally infiltrative, the

majority are pilocytic or fibrillary .25% of adult astrocytomas are malignant. Treatment surgical resection for low grade tumours with F/U MRI scans with radiotherapy reserved for recurrent tumours. For malignant tumours biopsy followed by radiotherapy. The prognosis is poor with average survival of 6-12 months. No place for aggressive resection.

3. **Hemangioblastoma**: 5%, in 10-15% part of von Hippel-Lindau syndrome. Usually dorsal and comes to epithelial surface.

4. Miscellaneous: include metastasis <5 %( lung and breast), lipoma 1%, cavernoma (haemosiderin ring).