

# A journey through the spinal cord lesions : an institutional experience

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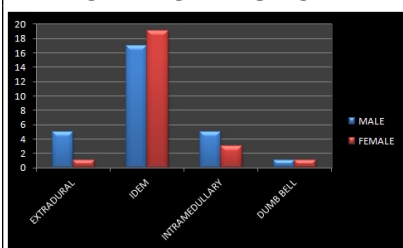
## Introduction

The most common spinal cord lesions is Primary spinal cord tumors which are uncommon neoplasms that account for 2% to 4% of central nervous system tumors. Spinal tumors have historically been classified according to their location in relation to the dural sac as extradural, intradural intramedullary and intradural extramedullary. Most primary spinal tumors are benign.

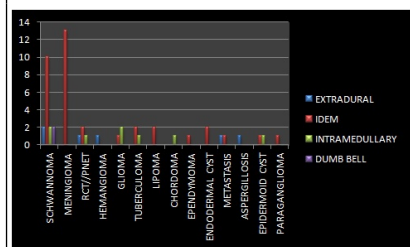
## Methods

A descriptive study of patients admitted with spinal cord lesions in the Institute of Neurosurgery, Madras Medical College was done from 01/01/2016 to 31/12/2016. 52 patients were admitted and operated during this study period. These 52 patients were analysed and studied based on several parameters like age and sex distribution, tumour classification and distribution, tumour location, imaging and histopathology discrepancies, squash and histopathology discrepancies and Immunohistochemistry.

## SEX DISTRIBUTION



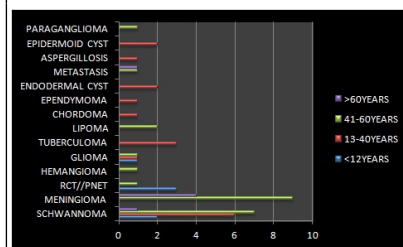
## PATHOLOGY



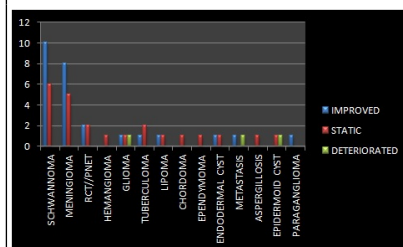
## Results

Total patients studied were 52. Most common age group affected was between 41 to 60 years - 23 patients(44%) and predominantly affecting male population - 28 patients(53%). Most common tumour classification is Intradural extramedullary - 36 patients(69%) and common location is in thoracic region for 19 patients(36%). There were 2 patients(3%)with intradural and extradural extension. There was discrepancy between the imaging and histopathology report for 15 patients(29%). For 6 patients(11%) there was discrepancy between squash and histopathology. In about 24 patients(46%) lesions most commonly involve 2 segments. In about 10 patients(19%) they involve more than 5 segments. The most common tumour histology reported is schwannoma for 16 patients(30%) followed by meningioma for 13 patients(25%). The most common tumour reported in paediatric age group is round cell tumour and that in adult is schwannoma. Functional outcome was better with extradural and intradural extramedullary tumours .

## AGE DISTRIBUTION OF INDIVIDUAL PATHOLOGY



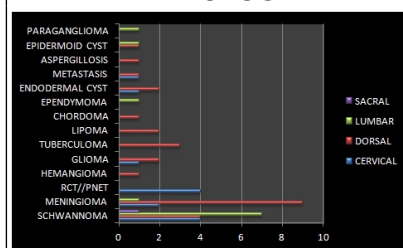
## FUNCTIONAL OUTCOME



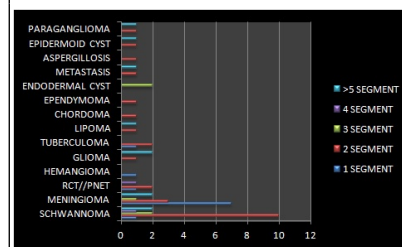
## SQUASH AND HPE DISCREPANCIES

S.NO	SQUASH REPORT	HISTOPATHOLOGICAL REPORT
1	EPENDYMOMA	SCHWANNOMA
2	NEUROFIBROMA	SCHWANNOMA
3	MENINGIOMA	SCHWANNOMA
4	MENINGIOMA	SCHWANNOMA
5	TUBERCULOOMA	EPENDYMOMA
6	EPENDYMOMA	SCHWANNOMA

## LOCATION OF INDIVIDUAL PATHOLOGY



## NUMBER OF SEGMENTS INVOLVED



## RADIOLOGICAL AND HISTOPATHOLOGICAL DIAGNOSIS

S.NO	RADIOLOGICAL DIAGNOSIS	HISTOPATHOLOGICAL DIAGNOSIS
1	NERVE SHEATH TUMOUR	MENINGIOMAL MENINGIOMA
2	NERVE SHEATH TUMOUR	ROUND CELL TUMOUR
3	NEUROFIBROMA	SCHWANNOMA
4	ARACHNOID CYST	EPIDERMOID CYST
5	SCHWANNOMA	MENINGIOMA
6	EPIDERMOID CYST	ENDODERMAL CYST
7	SCHWANNOMA	ROUND CELL TUMOUR
8	PARAGANGLIOMA	ROUND CELL TUMOUR
9	GLIOMA	CHORDOMA
10	NERVE SHEATH TUMOUR	MENINGIOMAL MENINGIOMA
11	SCHWANNOMA	MENINGIOMA
12	MENINGIOMA	SCHWANNOMA
13	SCHWANNOMA	MENINGIOMA
14	EPENDYMOMA	ENDODERMAL CYST
15	EPENDYMOMA	SCHWANNOMA

## Learning Objectives

By the conclusion of this session, participants should be able to elucidate the incidence of spinal cord lesions, imaging and histopathological discrepancies and functional outcome postoperatively depending on the pathology and number of spinal segments/roots involved.

## Conclusions

Spinal cord lesions is a major cause of morbidity than mortality amongst the CNS lesions. The incidence and clinical presentation of the spinal cord tumours in our Institute are compared with the International literature. when the tumour involves more number of spinal segments or roots, surgical outcome is guarded.

## References

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