

Oligodendroglial Tumours: Brain Tumour of Glial Cells

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COMMENTARY

Glioma is a kind of tumour which leads to formation of Cancer in the body. Glioma occurs in Glial cells surrounding nerve cells and in brain and other parts of Central Nervous System. There are 3 types of glial cells which lead to production of Tumour: Astrocytomas (astrocytoma, anaplastic astrocytoma and glioblastoma), Ependymomas (anaplastic ependymoma, myxopapillary ependymoma and subependymoma) and Oligodendrogliomas (oligodendroglioma, anaplastic oligodendroglioma and anaplastic oligoastrocytoma). In this commentary Oligodendroglial Tumour, will be explained in detail. Oligodendrogliomas are one of the forms of glioma and they usually arises either from oligodendrocytes present in the brain or they arouse from a glial precursor cell. Glial cells are responsible for making fatty white substance (myelin) which covers the nerve cells. Myelin assists signals (impulses) in travelling quickly all along the nerves. It is infrequent kind of brain tumour and occurs mostly in adults. Oligodendrogliomas are primary brain tumors present in frontal lobe of the cerebrum (brain). On the basis of how quickly these tumours spread, Oligodendroglioma is divided into two groups: Low Grade (These are Benign Tumours and spreads slowly) and High Grade (These are malignant tumour and spreads rapidly).

Causes of Oligodendroglioma

Glial cells (Oligodendrocytes) grow in large amount then tumour named Oligodendroglioma occurs. Chromosome abnormality or absence of any chromosome can also cause this tumour.

Indicators

Includes Seizures, Headaches, Weakness on one side of the body, Language difficulty, Behavior and personality changes, Balance and movement problems, Memory problems.

Diagnosis

Tests performed to identify Oligodendroglioma are-

- Neurological exam: It includes examining symptoms like weakness, vision, hearing etc
- Imaging tests: CT scans and MRIs determines size and location of the tumor. Oligodendrogliomas appears like a single tumor

with well-defined borders when seen under MRI

- Biopsy: Sample is taken and tested for tumour presence

Treatment

Treatment depends on size and grade of tumour and it includes-

- Surgery: Surgery is done when tumour grows rapidly but surgery is not enough to remove all tumour from a person's body
- Radiation therapy: Usage of high doses of X-rays destroys tumour left out after surgery. But Oligodendroglioma patients do not undergo radiation before surgery
- Chemotherapy: Anti-cancer drugs destroy cancer cells present in the body. It is beneficial as it destroys cancerous cells left after both surgery and radiation

Complications linked with oligodendrogliomas

People suffering with oligodendrogliomas suffer from several complications such as difficulty in breathing, nausea, vomiting when tumour starts growing rapidly and comes in contact with neighboring nerve cells and indirectly interferes with Central Nervous System.

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