



Oligodendroglioma: A Case Study

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ABSTRACT

Oligodendroglioma is a tumor that can occur in the brain or spinal cord. Oligodendroglioma forms from oligodendrocytes — cells in the brain and spinal cord that produce a substance that protects nerve cells. Oligodendrogliomas are a type of glioma that are believed to originate from the oligodendrocytes of the brain or from a glial precursor cell. They occur primarily in adults (9.4% of all primary brain and central nervous system tumors) but a real so found in children (4% of all primary brain tumors). Oligodendrogliomas, like all other infiltrating gliomas, have a very high (almost uniform) rate of recurrence and gradually increase in grade over time. Recurrent tumors are generally treated with more aggressive chemotherapy and radiation therapy. Recently, stereotactic surgery has proven successful in treating small tumors that have been diagnosed early.

Keywords: Oligodendroglioma, Tumors, Chemotherapy, Radiation Therapy

1. Introduction

Oligodendroglioma is a primary central nervous system (CNS) tumor. This means it begins in the brain or spinal cord. To get an accurate diagnosis, a piece of tumor tissue will be removed during surgery, if possible. A neuro pathologist should then review the tumor tissue. Primary CNS tumors are graded based on the tumor location, tumor type, extent of tumor spread, genetic findings, the patient's age, and tumor remaining after surgery, if surgery is possible. Oligodendrogliomas are grouped in two grades based on their characteristics.

Grade II oligodendrogliomas are low grade tumors. This means the tumor cells grow slowly and invade nearby normal tissue. In many cases, they form years before being diagnosed as no symptoms appear.

Grade III oligodendrogliomas are malignant (cancerous). This means they are fast-growing tumors. They are called anaplastic oligodendriogliomas.(2)

2. Casepresentation:

In April 2022, A 33year old male farmer visited IGMC, Shimla neurology department with the chief complaints of headache moderate to severe intensity, she was experiencing these symptoms from last 3 months. On physical examination the patient is having visual field loss, altered mental status, tremor and having loss of ability to perform fine movements.

Past Medical History:

2 years earlier Patient had car accident.

Past Medication History:

He was taking over the counter medication (tablets topache) when she experienced headache, since 3 month.

General Examination:

Weight: 60 kg

Height: 5foot 2inches

BMI: 24.2kg/m²

Physical activity: Activities are dull.

Special investigations:

MRI,CT-Scan, ECG, CBC, LFT, RFT, TSH.

3. TREATMENT:

Tab.PCM 650mg SOS, Tab.Pantop 40mg OD ,Tab. B Complex OD, Tab. Rantac, Tab.alprex ,
INJ. Augmantin TDS, INJ.Emeset4mgTDS, INJ.PCM1gmTDS.

4. INTERVENTIONS:

Excision of tumor was done.

Patient was advised to avoid mobilisation and take adequate amount of rest.

5. CARE PLAN:

Eat a healthy diet – take more fresh fruits and vegetables, whole grains, lean meats and fish, while limiting salt sugar and alcohol.

Avoid all tobacco products, to reduce the risk of injuring blood vessels and tissues even more.

6. OUTCOME:

After the excision of tumor the patient's headache was relieved. Patient was advised to take the prescribed medications.

Patient was advised to visit hospital after 1 month for follow-up.

7. DISCUSSION:

Oligodendroglioma is a tumor that can occur in the brain or spinal cord. Oligodendroglioma forms from oligodendrocytes — cells in the brain and spinal cord that produce a substance that protects nerve cells.

Oligodendroglioma can occur at any age, but most often affects adults. Signs and symptoms can include seizures and headaches. Weakness or disability can occur in the part of the body that's controlled by the nerve cells affected by the tumor.

Oligodendroglioma treatment usually involves surgery to remove the tumor. Additional treatments may be necessary if the tumor is aggressive or is more likely to recur.(3)

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