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Original Research Paper

Oncology/Radiotherapy

"PRESENTATION OF OLIGODENDROGLIOMA GRADE 2 INTO OLIGODENDROGLIOMA GRADE 3 AFTER 12 YEARS" CASE REPORT

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ABSTRACT Oligodendroglioma grade 2 takes 7-9 years to develope in to oligodendroglioma grade 3, A lady presented with diagnosis of oligodendroglioma grade 3.She gave the history of oligodendroglioma grade 2 before 12 years and after treatment of oligodendroglioma grade 2, she carried a normal life and gave a birth to a normal healthy baby in 2011.

KEYWORDS :

INTRODUCTION-

Anaplastic oligodendroglioma represents 3.5% of all malignant gliomas and 30% of oligodendroglial tumors. They occur predominantly in adults, with median age at diagnosis of 45 to 50 years, approximately 7 to 9 years older than grade II oligodendroglioma; this age difference reasonably corresponds to the average time of tumor "evolution" from grade II to grade III. Molecular Genetics Allelic loss of 1p and 19q is thought to be an early genetic alteration in the transformation and progression of oligodendrogliomas. Combined 1p and 19q deletions have been found in 63% of patients with anaplastic oligodendroglioma and 52% of patients with mixed anaplastic oligoastrocytoma, whereas astrocytic tumors have a lower incidence (8% to 11%) of combined 1p and 19q deletions. Deletions in 1p and 19q have been associated with longer progression-free survival, overall survival, and chemo- and radiosensitivity.

Case report:

In 2009:

History-

- In November, A 29 year lady presented with seizure involving generalized tonic-clonic movements with loss of consciousness for 30 min from 6 month
- Tingling and numbness in right upper limb and lower limb with weakness of right side from one week.
- Decreased verbalization from one week.

Examination-

1. Conscious with poor attention with decreased verbalization.
2. No cranial deficit.
3. Tone normal
4. Power Upper Limb(shoulder Abd/Add),Elbow(F/E),Grip RT3/5,LT 4/5

Lower Limb (HipAbd/Add),Knee(F/E),Ankle (DF/PF), RT3/5, LT4/5,Plantar- Bi-lateral flexors.

M.R.I.-

T1 hypo and T2 hyper intense lesion with mass effect and midline shift in post frontal region.

Treatment-

1. Surgery-

Left Frontotemporal craniotomy with excision of tumor.

Biopsy -

Oligodendroglioma grade 2

2. Adjuvant Treatment –

Adjuvant Radiation 60 Gy in 30 # given which was completed in may 2010. After that she performed well.

In 2022:

She presented with forgetfulness episodes from 3 weeks,

- Irritable behavior from 3 weeks.
- Difficulty in word finding from 3 weeks.
- Episodes of focal seizures involving right angle of mouth 2 weeks back.

Examination-

1. Consiousness with orientation to time place and person.
2. Tone Normal
3. Power Upper Limb(shoulder Abd/Add),Elbow(F/E),Grip RT5/5,LT 5/5
   Lower Limb (HipAbd/Add), Knee(F/E),Ankle (DF/PF),RT5/5,LT5/5, Plantar- Bi-lateral flexor.

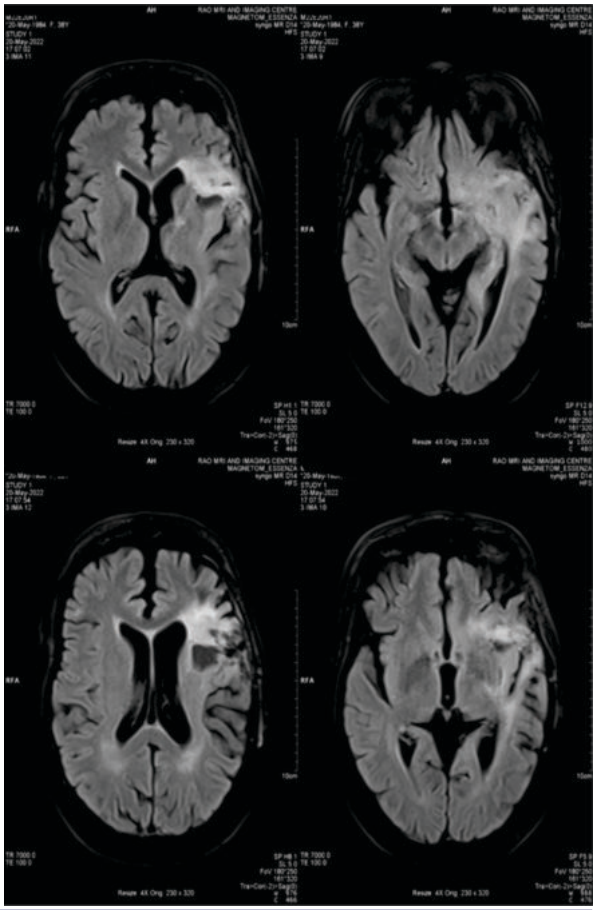
MRI –

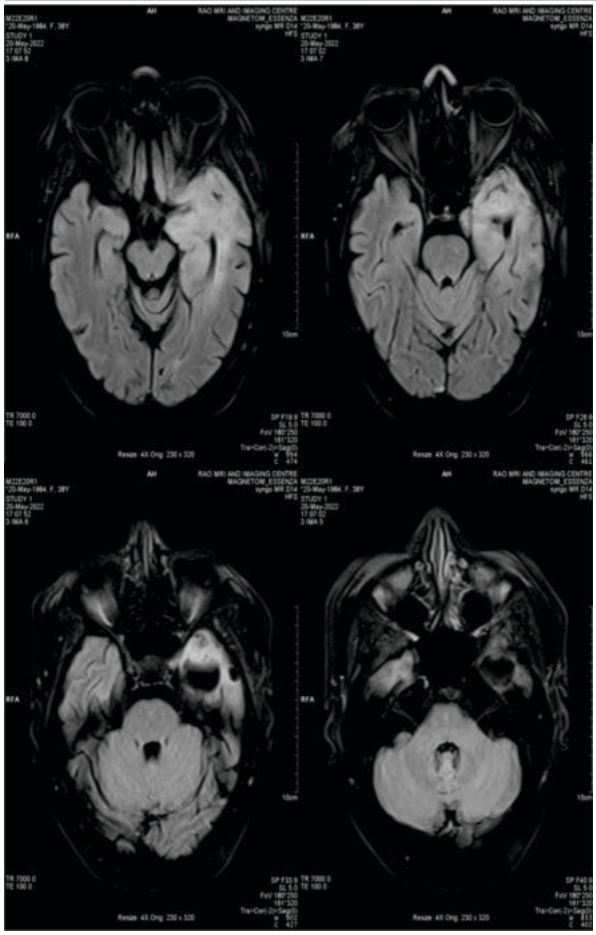
Left parasylvian region large mass with midline shift.

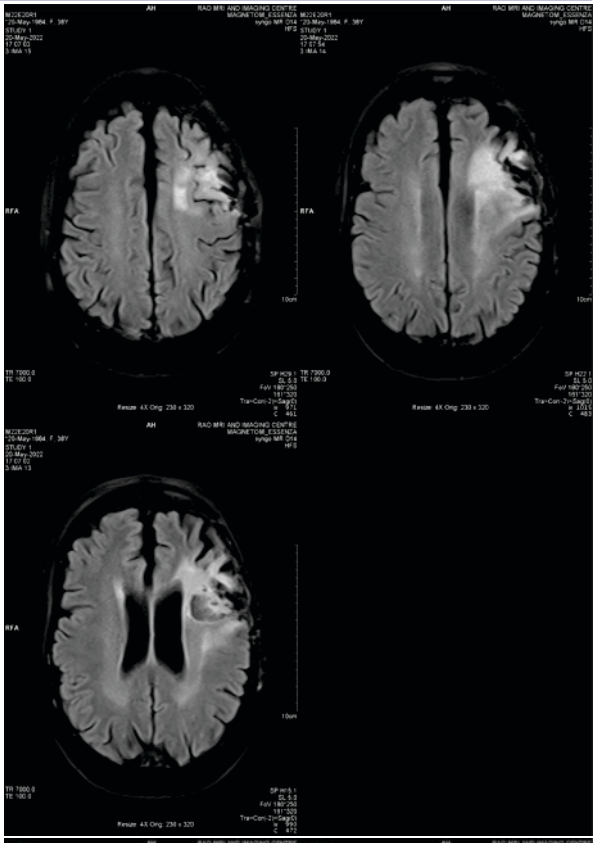
Surgery –

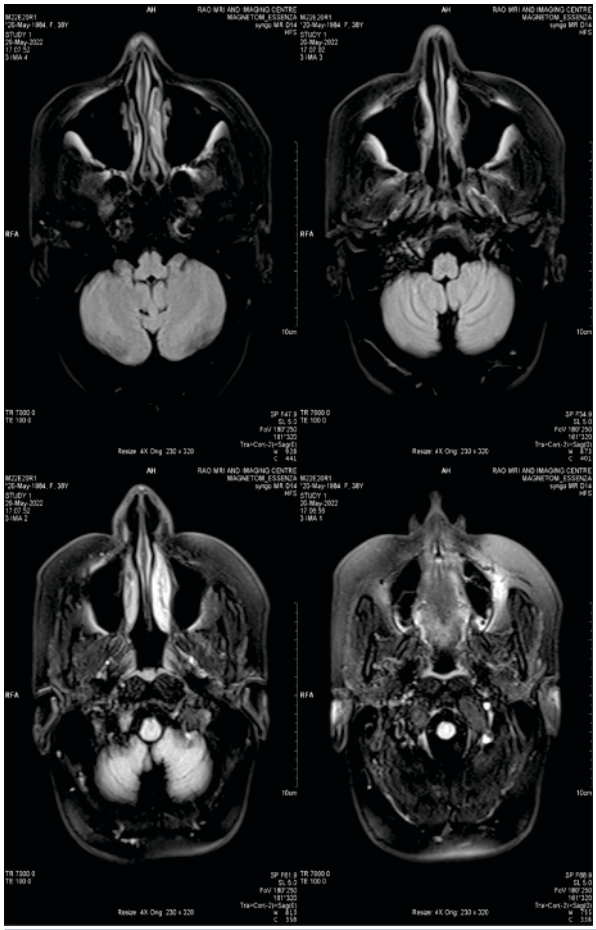
Left craniotomy with gross total resection of tumour done.

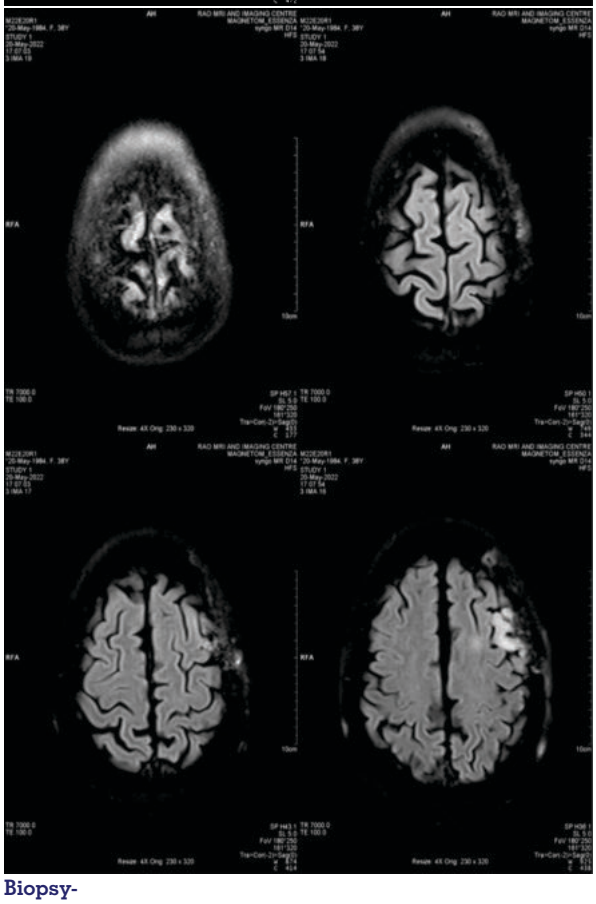
Post operative MRI imaging:











Biopsy-
Oligodendroglioma grade 3

Adjuvant treatment-
In the form of radiation 60 gy in 30 # with tab temozolamide given.

After one month of completion (April 2022) of radiation she is having temozolamide in adjuvant setting and performing well. She is still in follow up.

DISCUSSION-

Current standard of care for patients with anaplastic oligodendrogliomas is maximal surgical resection followed by postoperative radiotherapy and chemotherapy. The radiotherapy target volume and dose are similar to those for anaplastic oligodendroglioma. Levin et al. randomized patients with anaplastic gliomas or GBM to receive radiotherapy with adjuvant BCNU or PCV. The use of PCV was found to be associated with an improved outcome in patients with anaplastic glioma.

Anaplastic oligodendrogliomas are generally thought of as chemosensitive primarily based on high response rates to PCV in several studies. Because of the significant toxicity associated with PCV, many clinicians now use TMZ, which is much better tolerated. TMZ has produced high response rates in patients with anaplastic oligodendroglioma.

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