Optic nerve and visual pathways primary glioblastoma treated with radiotherapy and temozolomide chemotherapy.

Caignard A, Faguer R, Mercier P, Menei P, Milea D.

1 Department of Ophthalmology, Angers University Hospital, Angers - France.

Abstract

Purpose: Primary malignant gliomas of the optic nerves are rare tumors of adulthood, progressing rapidly to blindness and to death within several months, regardless of the type of treatment. Recently, treatments associating radiotherapy and temozolomide have been used in other types of glioblastomas, but their impact on optic nerve malignant gliomas is not known.

Methods: This was a retrospective case series of 2 patients diagnosed with primary optic nerve and chiasm glioblastoma (GBM), treated with radiotherapy and concomitant temozolomide.

Results: A 74-year-old man presented with visual loss caused by an infiltrative and enhancing lesion, affecting the left optic nerve and the chiasm, subsequently confirmed as GBM World Health Organization (WHO) grade IV. The patient was treated with external conformal radiotherapy (54 Gy over 42 days) and concomitant chemotherapy with temozolomide (75 mg/m²/day), followed by 6 monthly cycles of adjuvant treatment (250 mg/day for 5 days). The second patient was a 74-year-old woman diagnosed with bilateral visual loss due to pathologically confirmed GBM (WHO grade IV). She was treated with temozolomide (220 mg/day) for 1 month, followed by radiotherapy (54 Gy over 42 days) and temozolomide chemotherapy (75 mg/m²/day). There was no adjuvant regimen. This treatment resulted in disease stabilization and partial preservation of vision during 12 months for patient 1, 8 months for patient 2. Survival after first examination was 15 and 11 months, respectively.

Conclusions: Combined radiotherapy and temozolomide may be an alternative treatment in optic nerve and visual pathways primary GBM, potentially providing a longer survival.

PMID: 24366773 [PubMed - as supplied by publisher]