Prolonged administration of temozolomide in adult patients with anaplastic glioma.

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Abstract

Purpose: Prolonged administration of temozolomide is widely used in patients with glioblastoma; whereas the treatment of anaplastic glioma differs between neurooncological centres. The safety, feasibility and efficacy of prolonged temozolomide administration in patients with anaplastic gliomas was evaluated.

PATIENTS AND METHODS: Forty-two patients with primary, recurrent or secondary anaplastic glioma were retrospectively analysed for the course of their disease. Treatment mostly consisted of surgery, followed by radiotherapy with concomitant and adjuvant temozolomide. In five patients with recurrence of primary anaplastic glioma, chemotherapy was initiated without previous surgery. Temozolomide was administered until evidence of tumour recurrence, appearance of serious side-effects or patients' wish to finish chemotherapy.

RESULTS: The median overall survival (OS) was 39 months with a median cycle number of 7.5 (1-42). Treatment with temozolomide was stopped in 12 patients due to side-effects in general, whereas in only three patients (7.1%) treatment had to be discontinued due to haematological side-effects. There was no evidence of treatment related infections or grade IV toxicity. Extent of surgery had a significant influence on OS in anaplastic gliomas, the number of adjuvant temozolomide cycles showed a positive influence as well on time to progression (TTP) and OS.

CONCLUSION: Prolonged administration of adjuvant temozolomide is safe and can be favorable for patients with anaplastic gliomas.

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