Dokumenttyp: journal article

Autor(en) des Beitrags:
Adeberg, Sebastian; König, Laila; Bostel, Tilman; Harrabi, Semi; Welzel, Thomas; Debus, Jürgen; Combs, Stephanie E

Titel des Beitrags:
Glioblastoma recurrence patterns after radiation therapy with regard to the subventricular zone.

Abstract:
We evaluated the influence of tumor location and tumor spread in primary glioblastoma (GBM), with respect to the subventricular zone (SVZ), on recurrence behavior, progression-free survival (PFS), and overall survival (OS). 607 patients (376 male and 231 female) with a median age of 61.3 years (range, 3.0-87.9 years) and primary GBM treated with radiation therapy (RT) from 2004 to 2012 at a single institution were included in this retrospective study. Preoperative images and follow-up examination results were assessed to evaluate tumor location. Tumors were classified according to the tumor location in relation to the SVZ. The median PFS of the study population was 5.2 months (range, 1-91 months), and the median OS was 13.8 months (range, 1-102 months). Kaplan-Meier analysis showed that tumor location in close proximity to the SVZ was associated with a significant decline in PFS and OS (4.8 and 12.3 months, respectively; each P < .001). Furthermore, in cases where tumors were involved with the SVZ, distant cerebral progression (43.8%; P = .005) and multifocal progression (39.8%; P = .008) were more common. Interestingly, opening of the ventricle during the previous surgery showed no impact on PFS and OS. GBM in close proximity to the SVZ was associated with decreased survival and had a higher risk of multifocal or distant progression. Ventricle opening...
during surgery had no effect on survival rates.