Pre-operative peritumoral edema and survival rate in glioblastoma multiforme.

Liu SY, Mei WZ, Lin ZX.

Abstract
The aim of this systematic review was to examine the relationship between pre-operative peritumoral edema and survival in patients with glioblastoma multiforme (GBM). We searched for studies involving patients with GBM who underwent pre-operative imaging (magnetic resonance imaging and/or computed tomography) in which the peritumoral edema was assessed as a prognostic factor for survival. 7 retrospective studies met the eligibility criteria and were included in the study. 2 studies found that pre-operative peritumoral edema was an independent prognostic factor for decreased survival. 1 study found that survival was dependent on the severity of the peritumoral edema (minimal and severe: increased survival; moderate: decreased survival). 2 studies found that pre-operative peritumoral edema was a predictor of decreased survival based on univariate but not multivariate analysis. 1 study found that there was no relationship between pre-operative peritumoral edema and survival, while the remaining study found that patients with peritumoral edema had decreased survival compared with patients without peritumoral edema. There was considerable heterogeneity between the studies regarding the patient characteristics. The results of our systematic review are inconclusive; the available evidence does not definitely support or rule out an association between pre-operative peritumoral edema and survival. Hence, further, well-designed, prospective studies are clearly needed.

© 2013 S. Karger GmbH, Freiburg.

PMID: 24192774 [PubMed - in process]