Reviewer's report

Title: Radiation Therapy for Desmoplastic Medulloblastoma - A Retrospective Analysis of Outcome and Prognostic Factors

Version: 2 Date: 27 January 2010

Reviewer: Christian Senft

Reviewer's report:

- Major Compulsory Revisions

1. Rieken et al. present a retrospective report on a series of 20 patients with desmoplastic medulloblastomas (DM). The aim of this article is to evaluate the outcome of patients with DM with respect to chemotherapy following postsurgical radiotherapy. In the manuscript text, the authors state several times that only 7 patients received chemotherapy (e.g. Discussion, page 15, 2nd paragraph, 2nd sentence). In table 1, however, it appears as if all 20 patients received chemotherapy (also stated in the Results-Chemotherapy section). This should be clarified before any conclusions on the value of chemotherapy in addition to radiotherapy following surgery can be made.

2. The authors claim that desmoplastic features indicate a subgroup of patients with a distinctively better prognosis than the other medulloblastoma variants. As stated in the manuscript, reports regarding this issue have been conflicting [1,2]. It would be necessary for the authors to compare their results in patients with desmoplastic medulloblastomas with a group of non-desmoplastic ones to draw any conclusions on this histopathological variant as a prognostic factor.

3. In the treatment of patients with medulloblastomas, there is uncertainty not only regarding optimum treatment of adult patients, but it is also a matter of dispute whether prognosis differs between adult and pediatric patients [3]. The authors state that desmoplastic histology is more prevalent in adults than in children, indicating different outcomes between adults and children, and perhaps necessitating different treatment regimens between adult and pediatric patients. The authors are therefore advised to provide results on survival and recurrence rates stratified between adult (#18 years) and pediatric (<18 years) patients. The stratification between patients below or above median age (21 years in this series) is insufficient in that respect. The authors should include that stratification in their evaluation of the influence of chemotherapy on outcome.

References


- Minor Essential Revisions
1. All patients underwent surgery, and all (or some? – see comment above) patients apparently received some form of chemotherapy. Thus, the title is misleading and should perhaps read “Multimodal Therapy for ...“ or “Influence of chemotherapy in ....”

2. Interestingly and in contrast to a large previous series [1], the presence of metastases at primary diagnosis was not a prognostic factor in this series. The development of metastases represents an epi-phenomenon in patients with poorer outcome rather than being a prognostic factor itself. Thus, the only factor influencing survival that is found in this series is patient sex, which also could not be found in another large series [2]. Do the results of this series correspond to the small number of patients or potential treatment biases? This should be discussed in more detail. A male preponderance in medulloblastoma, as in this series, is a common observation [3].

3. Please provide P-values also for the significance of metastatic disease at primary diagnosis, age, tumor localization, chemotherapy, extent of resection on overall survival and progression-free survival. A table might be helpful to summarize (non-) prognostic factors.

4. Were any software tools or programs used for statistical calculations of Kaplan-Meier-estimates and Log-Rank tests, e.g. GraphPad, SPSS, SAS? Please provide details in the Methods-section.

References


- Discretionary Revisions
1. In the Introduction, the sentence “Initiating a new study that addresses adult medulloblastoma, and knowing that in adults, desmoplastic histology variant is detected far more often than in children, once again attention must be paid...” is unclear (who is initiating a study?) and should be re-phrased.

2. References no. 21-24 are unnecessary and should be omitted.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests.