Which therapy works better in choroid plexus carcinomas?

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Abstract
Choroid plexus carcinomas (CPCs) are rare tumors with dismal outcome. While it has been established that surgery, radiotherapy, and chemotherapy improve survival, the best chemotherapy drugs for treating this disease still need to be identified. Since CPC is too rare to permit a prospective clinical trial, we performed a meta-analysis to evaluate the effects of individual drugs in patients with CPCs. We expanded a pre-existing database and included all cases of choroid plexus tumors, identified in PubMed through the end of 2007, for a total of 906 patients. At first, we restricted the analysis to patients with histologically confirmed CPC (n = 361) and with residual tumor after surgery (n = 130/361 patients), and we compared response and survival between patients who received a particular drug and those who did not. Response to chemotherapy was documented in 43 patients. Of the drugs used in these patients, etoposide was associated with the highest response rate (17/36). Next survival was compared among all CPC. Kaplan-Meier curves and log-rank tests suggested a statistically significant treatment benefit for cyclophosphamide, etoposide, and carboplatin, while the effect of vincristine was found to be marginally significant (P = 0.07, log rank). Of these, only etoposide's effect could be confirmed in a limited Cox multiple regression analysis. In conclusion, etoposide should be included in future standard treatment protocols. However, the survival rates are still unsatisfactory, and additional novel drugs should be studied in prospective multicenter studies.

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