脳転移治療中の認知機能改善(Abstract LBA4)

全脳照射を受ける患者は放射線外科治療を受ける患者よりも認知機能低下がより多い

Cognitive decline more common in patients receiving whole brain radiation therapy than radiosurgery

第III相試験により、認知機能に対するアジュバント全脳照射（WBRT）の影響についての長年の論議に追加情報が提供された。1～3個の小さい脳転移に対し放射線外科治療後にWBRTを受けた患者は、放射線外科治療を受けた患者に比べ認知機能低下を来す確率が高いとの研究結果が、第51回American Society of Clinical Oncology年次集会で発表された。さらに、WBRTは脳転移の増殖抑制には役立ったが、患者の生存期間は有意に延長しなかった。このスタディにおいて、213人の患者が放射線外科治療または放射線外科治療後にWBRTを受ける群にランダムに割り付けられた。全ての患者が1～3個の小さな脳転移（最大径3㎝）を有していた。3か月後に認知機能低下を来していたのはWBRT群（92%）において放射線外科治療群（64%）よりも多かった。特に、WBRTを受けた患者は即時想起（30%対8%）、遅延想起（51%対20%）、および言葉によるコミュニケーション（19%対2%）における低下が著しかった。このスタディのQOLに関するデータ解析はまだ終了していない。

Full Text

A federally funded phase III trial provides additional information regarding a long-standing discussion about the impact of adjuvant whole brain radiation therapy (WBRT) on cognitive function. Patients with 1-3 small brain metastases who received radiosurgery followed by WBRT were more likely to experience cognitive decline than those who received radiosurgery alone according to research presented at the American Society of Clinical Oncology's 51st Annual Meeting. Furthermつore, WBRT did not significantly extend patient survival, though it did help control growth of brain metastases.

Patients with limited brain metastases often receive radiosurgery. Brain metastases are removed by conventional surgery in only a select minority of patients.

"We used to offer whole brain radiation early on, but we now know that the toxicities of this therapy are worse for the patient than cancer growth or recurrences in the brain," said senior study author Jan C. Buckner, M.D., a professor of oncology at Mayo Clinic in Rochester, MN. "We expect that practice will shift to reserve the use of whole brain radiation therapy for salvage treatment and end-stage palliative care."

In the study, 213 patients were randomly assigned to receive radiosurgery or radiosurgery followed by WBRT. All patients had 1-3 brain small brain metastases (up to 3 cm in width). At three months, more patients experienced cognitive decline in the WBRT group (92%) than in the radiosurgery group (64%).

Specifically, patients who received WBRT had a greater decline in immediate recall (30% vs. 8%), delayed recall (51% vs. 20%), and verbal communication (19% vs. 2%). The analysis of quality of life data from this study has not yet been completed. The difference in overall survival was not statistically significant between the two treatment groups.

According to the authors, the findings of this study have broad implications for oncology practice, as brain metastases are a common complication in cancer care. Melanoma and cancers of the lung, breast and colon spread to the brain especially often. Patients with bladder, kidney and gynecologic cancers can also develop brain metastases.

Dr. Buckner remarked that while adjuvant WBRT continues to be an option for patients with resected brain metastases, the ongoing NCCTG/Alliance trial comparing WBRT to stereotactic radiosurgery to the surgical cavity in patients with resected brain metastasis will eventually determine which treatment approach is better.

ASCO Expert Brian Michael Alexander, M.D. commented on the study: "This study will help shape treatment decisions for thousands of current and future patients. As doctors, we want the very best for our patients, and sometimes giving less treatment offers the better result. In patients treated with radiosurgery, the benefits of adding whole brain radiation must be weighed against the risks and side effects of treatment, and this study helps us identify the tradeoffs involved."

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