Novalis Stereotactic Radiotherapy Improved Metastatic Pituitary Tumor

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An 86-year-old woman presented with anterior and posterior pituitary deficiencies 5 months after chemoradiation for small-cell lung carcinoma. She had achieved remission, but gadolinium-enhanced T1-weighted magnetic resonance imaging revealed a pituitary mass with suprasellar extension, which was unrecognized 3 months previously, indicating metastasis (Picture 1A) (1). Because she did not want treatment other than hormone replacements, the tumor became enlarged over the subsequent 7 months (Picture 1B). Novalis (BrainLAB, Heimstetten, Germany) stereotactic radiotherapy (Picture 1C; total 39 Gy in 13 fractions) markedly reduced the tumor size and tumor marker levels without serious complications (Picture 1D; 5 months after irradiation). Her visual disturbance was significantly improved.

Novalis achieves fractionated irradiation appropriate to tumor shape by intensity-modulated radiation therapy (IMRT) (2). The therapeutic effect of Novalis for pituitary metastasis, which is rare, has not been evaluated. If the tumor is large (>3 cm) and/or involves optic pathways, Novalis should be preferred over gamma knife radiosurgery.

The authors state that they have no Conflict of Interest (COI).

References


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