

Helical tomotherapy for scalp recurrence of primary eccrine mucinous adenocarcinoma

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ABSTRACT

Primary cutaneous mucinous carcinomas originating from sweat glands are rare tumors with patterns of spread that are difficult to predict. We present a case of a five times recurring eccrine mucinous adenocarcinoma of the scalp, previously treated with surgery and adjuvant radiation therapy. After magnetic resonance imaging (MRI) and 18F-fluoro-2-deoxyglucose positron-emission tomography/computed tomography (18FDG-PET/CT), which documented local recurrence, the patient was considered eligible for salvage irradiation of the scalp. We decided to use helical tomotherapy, which combines conformity of dose delivery with the possibility of daily control of the setup accuracy. Forty gray (2Gy/fraction) to the planning target volume and 50 Gy (2.5Gy/fraction) to the biological target volume defined on the basis of 18FDG-PET/CT was prescribed with a simultaneous integrated boost technique. After 12 fractions the patient was submitted to intermediate evaluation by 18FDG-PET/CT, which showed a partial response to the treatment. After 2, 4, 8, and 12 months, 18FDG-PET/CT showed a complete metabolic local response. This experience suggests a possible role of 18FDG-PET/CT-guided helical tomotherapy as an alternative to repeated and frequently demolitive surgery approaches.

Key words: eccrine mucinous adenocarcinoma, scalp, tomotherapy, PET.

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