

Intensity-modulated radiation therapy with simultaneous integrated boost in unresected left-sided pleural mesothelioma: a case report

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ABSTRACT

A 77-year-old male patient with unresected malignant pleural mesothelioma, clinical stage T3N0M0 according to the New International Staging System for Diffuse Malignant Pleural Mesothelioma, received intensity-modulated radiotherapy (IMRT) with a simultaneous integrated boost (SIB) after 6 cycles of chemotherapy with cisplatin and pemetrexed. SIB-IMRT delivered 40.5 Gy (1.5 Gy/fraction) to the left pleura and 50 Gy (1.85 Gy/fraction) to the sites of macroscopic disease. Radiotherapy was well tolerated. Two months after the end of radiotherapy the patient showed grade 2 lung toxicity (febrile episodes accompanied by dry cough) that was successfully treated with steroid therapy. Local control lasted for 2 years after SIB-IMRT. Then the tumor recurred marginally to the radiation field and the patient underwent chemotherapy with pemetrexed. Three years from the diagnosis, the patient is alive and in good general condition. He only takes prednisone 5 mg/daily for exertional dyspnea. To the best of our knowledge this is the first reported use of SIB-IMRT in unresected malignant pleural mesothelioma. Considering the dosimetric advantages of SIB-IMRT and the clinical results observed in our patient, additional evaluation of this technique seems justified. Free full text available at www.tumorionline.it

Key words: mesothelioma, IMRT, simultaneous integrated boost.

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