

The impact of FDG-PET/CT on the management of head and neck tumours: The radiotherapist's perspective.

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It was of interest to determine the impact of FDG-PET/CT on general therapy management and radiotherapy (RT) planning in patients with stage IV head and neck tumours. The study was conducted prospectively between March 2006 and March 2007 in 35 patients with histologically confirmed, locally advanced squamous cell carcinomas of the head and neck. Prior to primary radiochemotherapy, whole-body and head/neck FDG-PET/CT was performed. The FDG-PET information was integrated into RT planning. By comparison with anatomical imaging, the FDG-PET/CT yielded the following additional information: distant metastases in 17.1% (6/35), second primary tumours in 11.4% (4/35), and changes in nodal status based on metabolic activity, i.e. upstaging in 34.3% (12/35) or downstaging in 22.9% (8/35). As a result, treatment strategy was changed from curative to palliative in six patients, and additional curative therapy was implemented following exclusion of distant metastases in two patients with a simultaneous local second primary tumour. The discordant nodal status found with head/neck FDG-PET/CT compared with anatomical imaging led to modification of radiotherapy volume and dose in 20 patients (57.1%). From the radiotherapist's perspective FDG-PET/CT is therefore useful and justifiable in the management of stage IV head and neck tumours.

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