عنوان مقاله:

Role of Pre-therapeutic 18F-FDG PET/CT in Guiding the Treatment Strategy and Predicting Prognosis in Patients with Esophageal Carcinoma

محل انتشار:

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خلاصه مقاله:

Objective(s): The present study aimed to evaluate the role of pretherapeutic 18fluorine-fluorodeoxyglucose positron emission tomographycomputed tomography (18F-FDG PET-CT) and maximum standardized uptake value (SUVmax) in guiding the treatment strategy and predicting the prognosis of esophageal carcinoma, using the survival data of thepatients.Methods: The present retrospective, cohort study was performed on 40 consecutive patients with esophageal carcinoma (confirmed by endoscopic biopsy), who underwent pre-operative 18F-FDG PET-CTstaging between January 2009 and June 2014. All the patients underwent contrast-enhanced CT and non-contrasted 18F-FDG PET-CT evaluations.The patients were followed-up over 12 months to assess the changes in therapeutic strategies. Survival analysis was done considering the primary tumor SUVmax, using the Kaplan–Meier product-limit method.Results: In a total of 40 patients, 18F-FDG PET-CT scan led to changes in disease stage in 26n (65.0%) cases, with upstaging and downstaging reported in 10n (25.0%) and 16n (40.0%) patients, respectively. The management strategy changed from palliative to curative in 10 out of 24 patients and from curative to palliative in 7 out of 16 cases. Based on the18F-FDG PET-CT scan alone, the median survival of patients in the palliative group was 4.0n (95 % CI 3.0-5.0) months, whereas the median survival in the curative group has not been reached, based on the 12-month followup.Selection of treatment strategy on the basis of 18F-FDG PET/CT alone was significantly associated with the survival outcomes at nine months (P=0.03) and marginally significant at 12 months (P=0.05). On the basisof SUVmax, the relation between survival and SUVmax was not statistically significant.Conclusion: 18F-FDG PET/CT scan had a significant impact on stage stratification and subsequently, selection of a stage-specific treatment approach and the overall survival outcome in patients with esophageal carcinoma. However, pre-treatment SUVmax failed to stablish its usefulness in the assessment of patient prognosis and survival outcome.

کلمات کلیدی:

FDG, PET/CT, oesophageal carcinoma, Prognosis