

STANDARDIZED UPTAKE VALUE (SUV) IN PET/CT FOR ESOPHAGEAL CANCER CORRELATES WITH PATHOLOGICAL STAGE AND PREDICTS R-CATEGORY OF RESECTION

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INTRODUCTION: PET / CT is increasingly used in the staging of oesophageal cancer. The implication of the value of standardized uptake value (SUV) is not fully known.

AIMS & METHODS: It is hypothesized that SUV has correlations with other clinico-pathological data and that it may have prognostic significance. Forty-five patients who had staging PET/CT performed for squamous cell cancer of the oesophagus were studied. The SUVmax values detected on the primary tumour on the scan were correlated with clinico-pathological data and survival in patients after surgical resection. All patients had surgical resection as the only treatment.

RESULTS: There were 31 men and 14 women with a median age of 67 yrs (range: 22–87). Tumors were located in the upper: middle: lower oesophagus in 5, 25 and 15 patients. SUV had no correlation with age, gender, level of tumour and tumour differentiation. Increasing SUV value correlated with advancing pT-stage ($p = 0.005$), overall p-stage, ($p = 0.01$), and R1/2-category of resection ($p = 0.03$), but not to pN status ($p = 0.4$). Logistic regression analysis of factors predictive of a R1/2 resection identified SUV and advanced age as the only two significant factors. A cut-off point of 11.6 seemed best to separate patients with different pT stages, p-overall stages, and R-categories of resection. SUV however had no significant correlation with long-term prognosis.

CONCLUSION: SUV in PET/CT for oesophageal cancers correlated with pathological stage of disease and was predictive of R-category of resection, which in turn was the most powerful predictor of survival.

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