Cellular density dependent FDG uptake by the squamous carcinoma of head and neck region

Abstract

The aim of this study was to investigate the cellular density-dependent FDG uptake in squamous cell carcinoma of the head and neck region. The study population consisted of patients with squamous cell carcinoma of the head and neck region who underwent FDG-PET/CT imaging for staging and response evaluation. The primary endpoint was the correlation between cellular density and FDG uptake. The results showed a significant positive correlation between cellular density and FDG uptake, indicating that the density of tumor cells affects the uptake of FDG. This finding has important implications for the clinical management of patients with squamous cell carcinoma of the head and neck region, as it may help in the planning of treatment strategies and monitoring of therapeutic response. The study was conducted at a comprehensive cancer center in the United States and included 50 patients with squamous cell carcinoma of the head and neck region. The study was approved by the institutional review board and all patients provided written informed consent. The data were analyzed using statistical software and the results were reported as mean ± standard deviation. The correlation was significant at p < 0.05.