Abstract

Objectives: To evaluate radiotherapy effects (RT) on mandibular movements of patients with head and neck cancer (H&NC) and associate them to the variables: functional capacity, radiation field, disease staging, type of feeding, concomitant chemotherapy and total dose of RT. Methods: Twenty-six patients with H&NC were followed up at the RT service. Physical examination was performed in 3 follow up time points: before the beginning of RT (T0), between 14th and 17th session of RT (T1) and after the last session of RT (T2). The physical examination consisted of the assessment of the following variables: mouth opening without pain (MO), maximum mouth opening (MMO), right lateral excursion (RLE), left lateral excursion (LLE) and protrusion (PR) of the jaw. The feeding type and the Karnofsky Performance Status Scale (KPS) were evaluated in each follow up time point. Data with regards to the tumor lesion and the RT were collected from the patient’s clinical notes. Results: There was a statistical significant reduction in the values of MO (p=0.006), MMO (p=0.001), LLE (p=0.006) and KPS (p=0.001). There was significant a statistical association among the reduction in KPS and decreased measure of MO (r=0.390, p=0.048) and MMO (r=0.435, p=0.026). The mouth and oropharynx radiation fields when combined showed a significant reduction for both the measure of MO (p=0.005) and for MMO (p=0.004). Patients who used nasoenteric tube feeding (NTF) had greater reduction in the measurement of MMO (p=0.031). The remaining variables showed no statistically significant difference. Conclusion: Patients with H&NC present reduction of the measures of MO and MMO during the RT, especially if they present reduced functional capacity, have radiation in the mouth and oropharynx fields and used NTF.

Keywords

Radiotherapy, trismus, head and neck neoplasms, joint range of motion.