The use of an intraoral device...

...TO PROTECT ORAL TISSUES AND REDUCE SIDE EFFECTS DURING RADIOTHERAPY

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Introduction

- Intraoral devices may be useful for patients under radiotherapy (RT) in head and neck region due to mechanical separation of oral structures;
- The aim of this study was to valuate the use of intraoral devices in Brazilian patients submitted to intensity-modulated radiotherapy and its side effects.

Methods

STUDY GROUP (SG)

12 patients using the device through tomography planning and RT sessions

CONTROL GROUP (CG)

12 patients without using the device through tomography planning and RT sessions

Patients were followed up from oral care before radiotherapy to after cancer treatment

ORAL MUCOSITIS (OM) AND TRISMUS CRITERIA:

Results

STUDY GROUP (SG)

- ⊕ 12 patients
7 male / 5 female
- ⊕ 75% = RT + surgery
- ⊕ Tongue (66,7%)
Lip (16,7%)
- ⊕ Oral mucositis:
WHO: Grade II (58,3%)
OMAS: 2-2,9 (58,3%)
- ⊕ Trismus: -10,3%

CONTROL GROUP (CG)

- ⊕ 12 patients
11 male / 1 female
- ⊕ 50% = RT + surgery
- ⊕ Oropharynx (50%)
Tongue (25%)
- ⊕ Oral mucositis:
WHO: Grade III (75%)

There was a greater incidence in severity of oral mucositis in CG and lower degree of development of erythema and oral mucosa ulcers in SG ($p < 0.05$). The mouth opening capacity after radiotherapy treatment in SG was decreased by an average of 10.3%.

FIGURES 3 AND 4. CORONAL COMPUTED TOMOGRAPHY SCAN FOR PLANNING RADIOTHERAPY TREATMENT IN TWO DIFFERENT PATIENTS WITH POSTERIOR TONGUE TUMOR WITHOUT AND WITH INTRAORAL DEVICE USE, RESPECTIVELY.

FIGURE 5. COMPUTED TOMOGRAPHY WITH RADIATION MAP OF A PATIENT WITH SQUAMOUS CELL CARCINOMA OF THE TONGUE. DISTANCE BETWEEN SOFT PALATE AND THE UPPER LIP OF THE REGION OF GREATER ISODOSE IS OBSERVED.

Conclusion

- The planning of distribution of isodoses in tumor and adjacent areas by computed tomography was facilitated using the device due to mechanical spacing of oral structures not compromised by cancer.
- The stabilization of the mouth and tongue position during radiotherapy made the treatment more comfortable for the patients, besides benefiting the work of the radiotherapist and medical physicist.

***CERTIFICATE OF PRESENTATION FOR ETHICAL APPRECIATION:
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