

The acute complication of irradiation of head and neck cancer: experience of oncology radiotherapy department in Universal Hospital Mohamed VI in Marrakech

Abstract

Objective: The radiation-induced mucositis during irradiation of the head and neck patients causes pain, dysphagia, weight loss and asthenia. In recent years, the treatment of locally advanced inoperable cancers has increased (chemoradiation, acceleration) and is always accompanied by an increase in mucosal toxicity. We evaluated the acute effects of patients treated with radiation chemotherapy for locally advanced head and neck cancers.

Methods: We collected 52 patients treated for head and neck cancer in the oncology radiotherapy department at CHU Mohamed VI of Marrakech between May 2013 and December 2014.

Results: The mean age was 52.5 years with a sex ratio M / F 2.5. The most frequent location was represented by the nasopharynx (57%). 75% received primary chemotherapy, but no patient developed a mucite ≥ 3 . Forty-four patients received concomitant chemotherapy radio. An irradiation of 70 Gy, alternated with combination chemotherapy. All patients developed mucositis, 36% was $G \geq 2$. The average duration of mucositis was 9.5 j. The average dwell time of treatment was 4.5 j. Of these patients, 75% of patients had a weight loss ≥ 5 kg. Dysphagia was present in all patients, occurring on average after a dose of 44Gy. 18% of patients developed radiodermite ≥ 2 , with an average duration of 11j.

Conclusion: The occurrence of toxicity during radiotherapy for head and neck cancers is inevitable, their treatment is symptomatic (prescription analgesic treatment and nutritional support) and the progress of the sequen of radiotherapy (IMRT).

Keywords: radiomucite, radiotherapy, head, neck cancer

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Introduction

The radiation-induced mucositis during irradiation of the head and neck results in patients pain, dysphagia, weight loss and asthenia. In recent years, treatment of inoperable locally advanced cancers has increased (chemo, radiation therapy alone) and is always accompanied by an increase in mucosal toxicity.¹ Several lines of research are trying to reduce mucosal reactions to improve the therapeutic index.²

Materials and methods

It is a retrospective study conducted in the oncology radiotherapy department of the University Hospital Mohamed VI of Marrakech. We collected 52 patients treated for head and neck cancer for a radio-chemotherapy concomitantly. And over a period of 19 months, between May 2013 and December 2014.

Results

The average age is 52.5 years with a sex ratio M / F 2.5. 90% of patients are smoking. The most common location is represented by the nasopharynx (57%). The predominant histological type is UCNT, followed by squamous cell carcinoma, one patient has malignant lymphoma hodghkinien at the nasopharynx. All patients are metastatic. One patient was T2N2M0, T3N2M0 20 patients, 4 patients T3N3M0, T4N2M0 10 patients, 6 patients T4N3M0. 75% (n=36) received a first chemotherapy, used protocols: TPF 27% 25%

5-Fu ciplatine, 25% Adrimycine-cisplatin, doxorubicin and cisplatin 22%. The average number of initial chemotherapy cure is 3 courses. When cett first chemotherapy, 25% of patients (n=36) have mucositis grade 2. No mucositis grade 3 were observed. 80% of patients (N=52) received radio-chemotherapy combination ARC, the rest radiotherapy alone. During radiation therapy, all patients developed mucositis, Of which 35% was $G \geq 2$. The average duration of mucositis was 9.5 days. The average dwell time of treatment was 4.5 days. No permanent discontinuation of radiation therapy are reported. The dermatitis was grade 2 in 90% of cases (N=52). The average duration of the dermatitis is 10j, appearing after an average of 43 GY dose received.

Discussion

Mucositis is a major complication induced by radiotherapy and/or chemotherapy in the treatment of cancers of the upper aerodigestive tract.³ This toxicity has a strong impact on quality of life of patients, as well as achieving optimal treatments that are offered.⁴ The results of our study soot those in the literature, the toxicity of the mucous membranes and skin and salivary glands of patients treated with concurrent chemoradiotherapy.^{4,5}

Clinical risk factors identified in the literature include age, female gender, initial performance of the index, the index of pretreatment body mass, the existence of a pre-treatment dysphagia, tumor stage and lymph node, the delivered dose, the irradiated volume

and laterality (unilateral or bilateral irradiation). Not to mention the concomitant chemotherapy and response to treatment greatly influences the appearance of toxicity.^{1,3-5} Not to hinder the treatment effect of these potentially curable cancers ORL, good management is imperative. The diet excludes irritating foods, treatment of gastroesophageal reflux disease, analgesic treatment by level of the World Health Organization, the treatment of dehydration and malnutrition (nasogastric tube) to reduce toxicity.

Conclusion

At the limit of our observational study, radiation-induced toxicity in our patients joined European and American series. Except that the occurrence of this toxicity remains multifactorial without omitting the profile and the particularity of each population, to investigate in this direction for our patients in Morocco.

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Conflicts of interest

The author declares that there is no conflict of interest.

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