The Importance of Interprofessional Performance on the Care of a Patient with Carcinoma Ex Pleomorphic Adenoma in Submandibular Gland: Case Report

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Abstract

Introduction: The interprofessional performance of the health team is considered essential for the care and management of people during cancer treatment, whether in relationships with the patient or in those with the team itself. This practice is an essential solution to healthcare. This study aims to report a clinical case of a patient diagnosed with carcinoma ex pleomorphic adenoma in the right submandibular gland, showing the importance of interprofessional cooperation between Medicine and Dentistry during its treatment.

Case Report: A 35 year old male patient diagnosed with carcinoma ex pleomorphic adenoma was treated with surgery and adjuvant radiotherapy, alongside dental laser therapy for the prevention and treatment of mucositis. Oral management was also done previous to the radiotherapy. Throughout radiotherapy treatment, patient presented tolerable toxicity with grade 2 mucositis according to the World Health Organization. Two weeks after the end of treatment, the patient did not show clinical evidence of mucositis. He is still undertaking medical and dental treatment, not presenting any signs of recurrence, local or systemic, nor relevant late toxicity levels.

Conclusion: Interprofessional approach between Medicine and Dentistry given to the patient previous, during and after oncologic treatment was extremely important because it allowed him comfort and quality of life, as well as minimum sequelae.

Keywords: Oncology; Carcinoma; Submandibular Gland; Patient Assistance Team; Quality of Life

Introduction

The World Health Organization (WHO) defines interprofessional practice as a strategy that allows collective work development in an efficient way, since there is an incorporation of the professional experiences from multiple areas, stimulating decision making and communication between professionals. Thus consolidating the importance of care and optimizing the quality of attention to health [1].

The work of an interprofessional team is recognized as Golden-standard for management of people during oncologic treatment, regarding both patient and team relations. This practice is an essential solution to healthcare [2].

Carcinoma ex pleomorphic adenoma (CXPA) is a rare malignant tumor in the salivary glands that derives from the malignant transformation of an existent pleomorphic adenoma. It represents approximately 3% to 5% of salivary glands malignant tumors, affecting mostly the parotid gland [3,4]. CXPA mainly affects patients between sixty and eighty years of age, has small predominance in the male sex, and half its patients do not present any symptoms that suggest malignancy in the initial phase [4,5]. Many studies con-
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Sider the CXPA as highly malignant, with bad prognosis, frequently leading to metastasis and death. However, survival is related with the size, dimension, and histological degree of the tumor [3].

Surgery is the main treatment and, in some cases, post-operative radiotherapy is indicated [6]. Due to the fact that treatment can result in sequelae or side effects, and that the buccal cavity is one of the main places in the body to reflect these alterations, it is fundamental for the Dental team to work along with medical one. Thus allowing the prevention and control of oral sequelae, ensuring patient’s comfort and quality of life [7].

The objective of this work is to describe a clinical case of a patient diagnosed with carcinoma ex pleomorphic adenoma in the right submandibular gland, showing the importance of interprofessional Medical and Dental cooperation. This study was approved by the Ethics Committee under number 2.680.729 at the Ethics Committee in Research from the University Center Tabosa de Almeida (ASCES/UNITA).

Case Report

Patient J.M.S., male, 35 years old, white, no comorbidities, was reported as having a painless swelling of the right submandibular gland two years previously, with no history of trauma or change on skin coloring. During physical examination, he presented volumetric increase on the nodule of the right submandibular region, with defined limits, painless, and palpable. Cervical ultrasonography showed a solid hypoechoic mass, with lobulated margins, measuring approximately 3.7 x 2.0 x 2.8 cm.

Patient was subjected to fine-needle aspiration (FNA) for cytological analysis, using hematoxylin and eosin staining (HES). The result was an atypical epithelial proliferation, suggesting a histopathological study in order to improve the diagnosis. A lesion exeresis under general anesthesia was performed on 02/07/2017. During the surgery, a hardened lesion of 5.7 cm x 3.5 cm x 3.7 cm was observed on the lateral portion of the right submandibular gland, and hardened, swollen lymphnodes (measuring 1.7 cm on its biggest diameter). The right submandibular gland resection was done, as well as a level IA cervical lymphadenectomy. Histopathological report showed a 1.4 cm carcinoma ex pleomorphic adenoma, with extracapsular invasion superior to 1.5 mm. No vascular invasion was detected. All three lymph nodes were free from neoplasia, and the margins were carcinoma free. Patient was subjected to adjuvant radiotherapy with conformational technic (44 Gy in 22 fractions over surgical bed and the first step of ipsilateral drainage from 03/29/2017 to 05/05/2017 with posterior reinforcement of 22 Gy in 11 fractions over surgical bed from 05/08/2017 to 05/23/2017.

Before beginning radiotherapy, the patient was referred to dental evaluation, where clinical and imaging exams were made, followed by preparatory proceedings and oral management, scraping, prophylaxis, extraction of the tooth number 17 due to carious lesion and application of topical sodium fluoride 1%.

After the 6th session of radiotherapy, a protocol to prevent buccal mucositis was initiated on the patient using a low-level laser (Photon Lase III DMC), with 660 nm wavelength, 10 mW power, 70 J/cm² energy density, on continuous mode, daily, under every single intraoral application point (labial mucosa, jugal mucosa, lateral tongue border and mouth floor). During the radiotherapy treat-

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The patient presented tolerable toxicity with grade 2 mucositis, according to the WHO classification, as shown on figure 3. Besides laser therapy, the patient also used cold chamomile tea as mouthwash, an herbal medicine with anti-inflammatory characteristics; daily oral hygiene with dental cream, fluoride, and chlorhexidine diglucoconate 0.12% mouthwash, no alcohol. Laser therapy ended two weeks after radiotherapy, with no relevant clinical complaints and no evidence of mucositis, as seen on figure 4. The new prophylaxis was done, as well as topic application of fluorite, with quarterly dental follow-up. On the last consult, on 01/30/2019, the patient was well, with no signs of local or systemic recurrence, and no late relevant toxicity. As a consequence, the patient presented residual skin scar due to surgery and no growth of beard hair because of radiotherapy in the region, that he reports does not annoy him, as shown on figure 5.

Discussion

The WHO points out that interprofessional health teams qualify the health services offered to others, allow the comprehension of members’ ability, as well as sharing and managing each case [1].

The case described happened on the submandibular gland of a young patient with a report of cervical nodule for two years, which differs from most cases in literature [6]. Those show that CXPA tends to develop in patients between ages of 60 and 80, being extremely rare in submandibular glands. Although no vascular invasion was detected, nor any lymph nodes were compromised, adjuvant radiotherapy was chosen due to the high grading of the CXPA tumor, as well as the presence of superior extracapsular invasion at 1.5 mm, factors clearly defined as predicting of high risk of local recurrence [3,6].

The joint act of Medicine and Dentistry was vital to promote comfort and minimum sequelae to the patient described on this case, since there was a referral for dental treatment before oncotherapy, allowing the elimination and stabilization of buccal conditions and thus minimizing risk of local and systemic infections. The
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Literature [8,9] shows that the majority of patients does not receive dental treatment previous to the oncological therapy, besides not receiving any additional information on their oral health. In case of secondary infection, it could lead to the interruption of treatment and compromise survival rates.

Furthermore, oral changes related to oncological treatment can be observed during and after antineoplastic therapy in, approximately, 90% of cases in which the patient has head and neck cancer, with oral mucositis as the main acute complication reported [8]. Due to the pain caused, as well as speech, swallowing and hygiene problems, which predispose patients to infections and/or interruption of treatment, this alteration ends up being very significant and it affects quality of life [10].

On the case reported, daily laser applications on the red wavelength were done as a preventive measure, and posteriorly with the objective of healing the lesions. Laser therapy presents good results on oral mucositis management, being effective on the symptomatic control and reduction of incidence and severity of lesions, regarding tissue biostimulation processes, acceleration of the healing process and pain relief, as shown in literature [10,11].

Conclusion

It is clear that the interprofessional approach between Medicine and Dentistry to the patient before, during, and after oncological treatment, allowed him higher comfort, as well as minimum sequelae. Thus the importance of strengthening this type of cooperation in health, because it allows the implementation of the collaborative health practice and ensures integral care, enabling the achievement of the best results to patient recovery.

Bibliography


