Gnatek Adrian, Osica Piotr, Janas Naze Anna. Surgical management aspect of the patient with clear cell renal cell carcinoma metastasis to the upper lip- a case report. Journal of Education, Health and Sport. 2017;7(11):294-308. eISSN 2391-8306. DOI http://dx.doi.org/10.5281/zenodo.1069810
http://ojs.ukw.edu.pl/index.php/johs/article/view/5083

The journal has had 7 points in Ministry of Science and Higher Education parametric evaluation. Part B item 1223 (26.01.2017).
1223 Journal of Education, Health and Sport eISSN 2391-8306 7

The authors declare that there is no conflict of interests regarding the publication of this paper.
Received: 20.10.2017. Revised: 21.10.2017. Accepted: 30.11.2017.

SURGICAL MANAGEMENT ASPECT OF THE PATIENT WITH CLEAR CELL RENAL CELL CARCINOMA METASTASIS TO THE UPPER LIP- A CASE REPORT

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The article was financed by Medical University of Lodz as a part or statutory activity nr 503/2-163-01/503/01

Abstract

The article describes the case of a 49–year-old patient with clear cell renal cell carcinoma metastasis to the upper lip that has undergone the procedure of excision of the metastatic lesion with carbon dioxide surgical laser.

Key words: clear cell renal cell carcinoma, surgery, metastasis, surgical laser

Introduction

Metastasis is a multistage process, which develops through releasing neoplastic cells from primary focus, their surviving in bloodstream, localizing in distant organs and further growth [1], when genetically unstable neoplastic cells adapt to the microenvironment of the tissue distant from primary tumor [2]. Clear cell renal cell carcinoma is the most common type of all renal carcinomas observed in adults. Its prognosis is the worst among other renal epithelial carcinomas [3].Clear cell renal cell carcinoma is a highly vascularized tumor, resistant to conventional chemio- and radiotherapy [4].

Clear cell renal cell carcinoma metastases to the head and neck organs are rare. Single cases show that metastases can appear shortly as well as many years after radical surgical procedures. The diagnosis of the cancer is difficult due to its deceptional course; thus the correct diagnosis appears too late. The late diagnosis is associated with high risk of distant metastases and increased mortality [5].

Surgical treatment of neoplasm has many advantages in comparison with other treatment techniques. The principles defining the aim of surgical treatment, surgical planning, surgical technique, surgical margins and postoperative care are being revised. Special attention should be focused on the carcinoma seeding and obtaining adequate oncological margins [6].

The article presents the case of a 49–year-old patient with clear cell renal cell carcinoma metastasis to the upper lip. The patient has undergone the procedure of excision of the metastatic lesion with carbon dioxide laser.

Case report

A 49-year-old patient was referred by periodontologist to the Oral Surgery Department of the Medical University of Lodz for treatment of pathological lesion of the upper lip.

Primary diagnosis by general practitioner was herpes virus. According to the GP's decision, the periodontologist prescribed antiviral treatment. Due to the lack of positive reaction to the antiviral treatment (acyclovir was administered), patient was referred for surgical consultation. Past medical history revealed patient's oncological disease. In year 2011 the patient was diagnosed with clear cell renal cell carcinoma with metastases in lungs and undergone a few cycles of radiotherapy.

The history of the present complaint revealed that the lesion in upper lip had appeared three weeks before the patient was admitted to the Surgery Department. Patient described bleeding when touching the lesion, no pain and no significant moment of lesion appearing. Medical examination allowed to describe the lesion as exophytic, black and brown in color, situated in upper right half of the lip right, painless, hard with irregular shape and surface, infiltrated stroma, strongly bleeding when touching (Fig. 1, 2, 3). The submental and submandibular lymph nodes were impalpable. Due to untypical character of the lesion and oncologic history, the decision to excise the lesion and verify its origin with histopathological examination was made.

The treatment plan was presented to the patient taking into consideration possible complications. After collecting all indispensable signatures on operation agreement form, prescribing medications and appropriate laboratory blood tests, the day of the surgery was scheduled. The patient was informed about the details of postoperative recommendations and obligatory follow-ups.

In local anesthesia the lesion was excised with oncological margins with CO_2 laser (Fig. 4, 5, 6). Tissues were coagulated with the dispersed beam of the laser (Fig. 7). The lesion was sent for histopathological examination. Intra- and postoperative course were without complications. Patient was discharged from the clinic in general good condition. Follow-up examination was performed the day after operation. Patient showed no complaints, good healing was observed.

Two weeks after operation patient was admitted to the clinic to evaluate the process of wound healing (Fig. 8, 9) and collect the results of histopathology examination. The histological diagnosis: metastasis of clear cell renal cell carcinoma. For further oncological treatment patient was referred to Oncology Center.

Discussion

Renal cell carcinoma is relatively common neoplastic lesion. The most often diagnosed histological type is clear cell renal cell carcinoma. It has a strong tendency to metastasize to virtually all the organs of human body [7].

Oral cavity is not so common region for metastatic cells colonization. If metastases appear in this region, it proves wide spreading of neoplastic disease. In 25% of all cases, metastases in oral cavity were the first symptom of metastasizing, namely in 23% it was the first sign of unrevealed neoplastic process in distant region [8].

Any disorders in oral cavity associated with preneoplastic and neoplastic lesions present in many sort of ways [9]. Clinical manifestation of metastatic lesions differs among autonomic regions in oral cavity. In maxilla and mandible majority of patients complain of swelling, pain and paresthesia that develop in short period of time. Early manifestation of metastases in gingiva resembles hyperplastic or reactive lesion similar to pyogenic granuloma, peripheral giant cell granuloma or fibromatous epulis. Due to its rarity, the diagnostic process of metastatic lesions in oral cavity is difficult for the clinician as well as for the pathologist. They have to be capable of recognizing if pathologic lesion is a metastatic lesion or not and establishing primary focus. Clinical presentation of the symptoms in oral cavity can be confusing, leading to wrong diagnosis of benign process. Thus in each case, when clinical appearance of the lesion is suspicious, particularly in patients with oncologic disease, the biopsy is indispensable [8]. Primary surgical excision with or without adjuvant therapy is the standard of the treatment. Improvement of surgical techniques combined with routine postoperative radio- or chemotherapy caused the growth in survival outcomes [10].

CO_2 laser became a great choice for head and neck surgeons in treatment of malignant tumors in oral cavity. This kind of therapy offers relatively painless methods of reducing the mass and excising tumors. Other CO_2 laser advantages are hemostasis, precise visualization of the operative field, reduced swelling and pain in comparison with conventional techniques fast and precise tissue cutting, low risk of complications, minimal cicatrization and wound contracture [11, 12].

In patients with particularly malignant histologic types of neoplasm as described in the case above, easily metastasizing, any suspicious lesions should be considered as a potential metastatic focus, where the treatment of choice is a surgery procedure. The proper operative method, localizing oncological margins and surgeon experience are the basic aims having an influence on patient health condition and total tumor excision.

Taking that into consideration, holistic approach seems to be the basic rule in planning and performing surgical procedures associated with the excision of pathological lesions in head and neck regions in oncologic patients. After noticing the lesion in the upper lip the patient described in the article at first referred to the oncology center, where had been treated since 2011 year, the time of renal cell carcinoma diagnosis. In above-mentioned center the lesion was ignored and the patient was referred to the general practitioner. Thus, proper, determined and individual approach seems to be indisputable. Each doctor admitting any patient with suspicious lesion, all the more with oncologic medical history, should approach to them with due care and oncological alertness.

The excellent multidisciplinary cooperation between head and neck surgeons and oncology centers that performs the treatment of patient neoplastic disease is very relevant and should be strongly emphasized. Any risk and final success of surgical treatment ought to be appropriately assessed. Partial or total excision, cytoreductive chemotherapy, palliative surgery, these are only a few scenarios for considering by surgeon. There is no doubt that any oncological surgery procedures ought to be performed with great thoroughness by well-experienced operative teams, using most efficient methods and surgery equipment. Despite all these facts, treatment of oncological patients is a particularly complicated task, which requires appropriate wisdom, time and experience. Immediate steps towards histopathological diagnosis of neoplastic lesion and its radical excision improves therapeutic prognosis and survival outcomes.

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Fig. 1. Appearance of the lesion , facing forward.

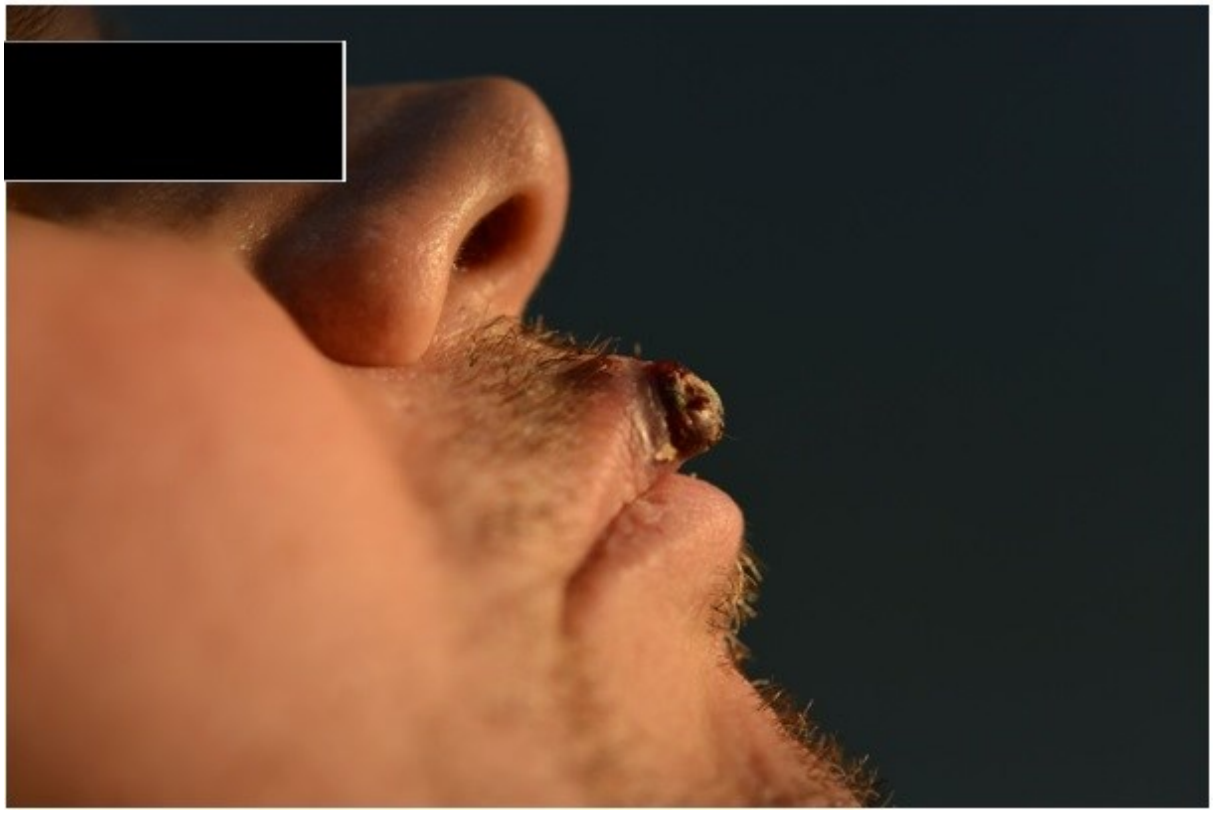

Fig. 2. Appearance of the lesion in profile.

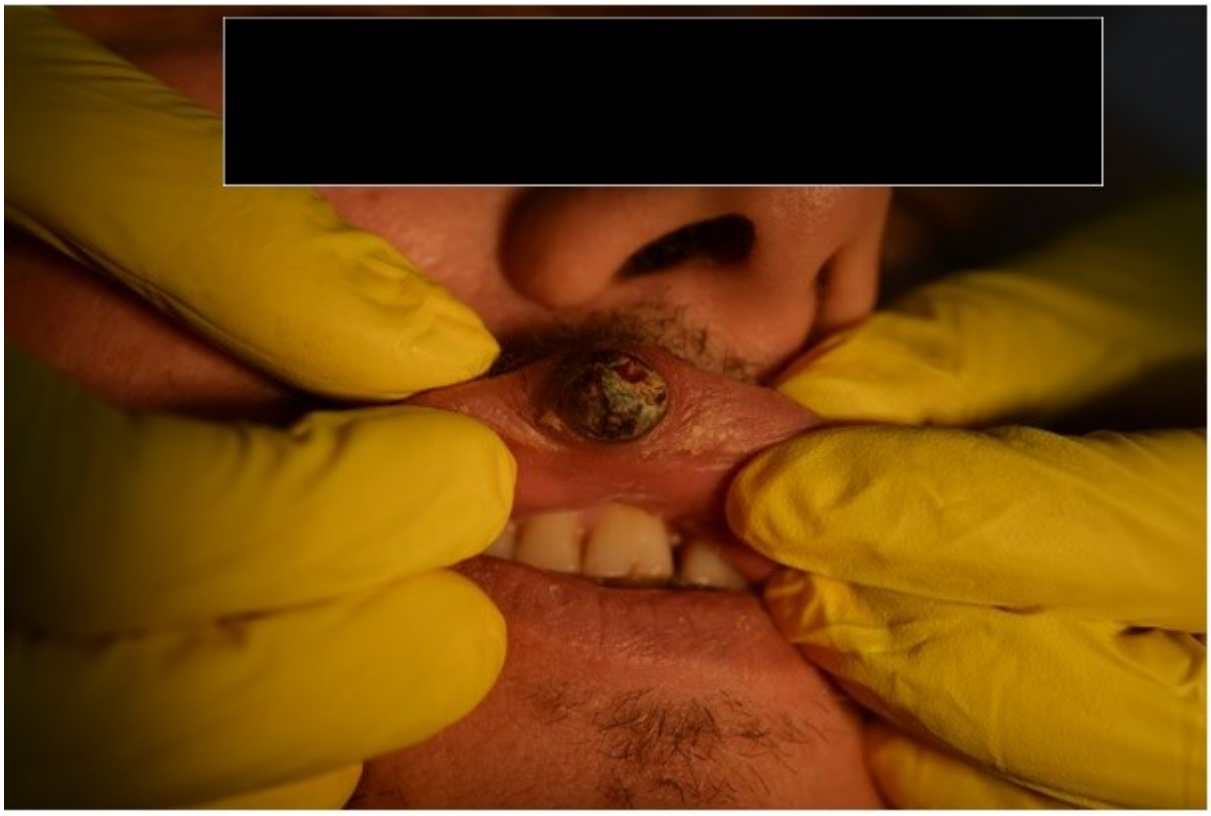

Fig. 3. Location of the lesion in relation to mucosa of the upper lip.

Fig. 4. Lesion after primary cut.

Fig. 5, 6. Lesion with partially cut peduncle.

Fig. 5, 6. Lesion with partially cut peduncle.

Fig. 7. Condition after complete removal of the lesion and coagulation of the matrix.

Fig. 8. Operating area after 2 weeks from surgery, facing forward.

Fig. 9. Operating are after 2 weeks from surgery, in profile.