



Clown Nose Metastasis from an Epidermoid Lung Cancer

Imen Harhira*, Rachdi Haifa, Keskes Aicha, Mejri Nesrine, Labidi Soumaya and Boussen Hamouda

Department of Medical Oncology, University Tunis El Manar, Tunisia

Abstract

A 68-year-old man was consulted in October 2018 with an 11-month history of a central skin nodular lesion, sized 6 cm × 5 cm associated with dyspnea and chest pain. Imagery shown a left hilar lesion associated with carcinomatous lymphangitis and adenopathy mediastinal and multiple brain lesions. Biopsy of the pulmonary lesion and the nasal lesion concluded to be an epidermoid carcinoma. In light of the Patient being quite symptomatic, palliative chemotherapy carboplatin and Gemcitabin was started and after three cycles a clinical benefit on respiratory symptoms and decrease of the nose lesion appeared more pigmented was noted.

Keywords: Nose; Clown; Metastases; Lung cancer; Epidermoid

Introduction

Metastases in the skin may be the first sign of lung cancer. Rarely observed as first manifestation of the disease, they arise mostly from adenocarcinoma. The presentation as ‘Clown Nose’ (CN) is rarer and described as reddish brown bulge involving the tip of the nose. We report a new observation on CN metastasis from lung cancer in a Tunisian patient.

Case Presentation

A 68-year-old man, heavy smoker since the age of 18 years, consulted in October 2018 for an 11-month history of dyspnea and chest pain and had an appearance of a reddish central non painful nose lesion. Clinical exam showed a nodular lesion, reddish, sized 6 cm × 5 cm, isolated without cervical nodes. Total body scan showed a suspect left hilar lesion, associated with left lung carcinomatous lymphangitis, bilateral mediastinal adenopathy and cerebral metastasis. Biopsy of both lung lesion and nose concluded to be a moderately differentiated epidermoid carcinoma.

The patient being asymptomatic of respiratory and neurologic symptoms was started on a palliative chemotherapy with Carboplatin and Gemcitabin. We observed after three cycles, a clinical benefit on respiratory symptoms and a decrease of size of the nose lesion (Figure 1 and 2). Body scan had showed a stable disease too.

Discussion

Cutaneous metastasis is a rare manifestation of lung cancer. It occurs in approximately 1% to 10% of patients. It suggests a poor prognosis, with a median survival of 3 to 6 months [1]. The incidence of skin metastasis increases with age and more so after 50 years [2]. Patients found to

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*Correspondence:

Imen Harhira, Department of Medical Oncology, University Tunis El Manar, Tunis, Tunisia, Tel: 21690593566; E-mail: imen_harhira@yahoo.fr

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Figure 1: CN at the first cycle of chemotherapy.

Table 1: Reported cases of clown nose from lung cancer.

Patients	Age	Sex	Lung histopathology	Other distant metastases
1	76	Female	Oat cell carcinoma	Thoracic vertebrae
2	67	Male	Squamous cell carcinoma	Terminal ileum
3	71	Male	Squamous cell carcinoma	Scalp, lung, brain
4	65	Male	Adenosquamous cell carcinoma	Bone
5	58	Male	Not described	None
6	63	Male	Anaplastic large cell carcinoma	Nasal septum
7	59	Male	Squamous cell carcinoma	Brain
8	64	Male	Large cell undifferentiated carcinoma	Lymph node
9	74	Male	Squamous cell carcinoma	Lymph node, adrenal gland
10	62	Male	Squamous cell carcinoma	vertebrae
11	76	Male	Squamous cell carcinoma	None
12	57	Male	Squamous cell carcinoma	Finger tips

**Figure 2:** The evolution of CN after two and three cycles of chemotherapy.

have cutaneous metastases before internal malignancies had a worse survival than patients who do not [3].

Cutaneous metastases occur generally in regions close to the primary cancer [3].

'Clown nose' has been described in a few patients with chordoma, kidney tumor, hepatocellular carcinoma, seminoma, leukemia [4], breast cancer [5], cervix carcinoma [6], and esophageal carcinoma [4]. Ten cases of metastasis to the nose from primary lung cancer have been described in the literature [7]. The most common histopathological type of cutaneous metastases from the lung is adenocarcinoma, followed by Small Cell Carcinoma (SCC), and then large cell carcinoma [8] (Table 1).

However the most common histopathological type of 'clown nose' metastasis arising from the lung is squamous cell carcinoma [7].

Fifty two percent of patients with cutaneous metastases from lung cancer, the skin metastasis were the first site of extranodal involvement [9].

The mechanism of lung cancer metastasis to the nose has not yet been fully elucidated. Baston et al. [10] suggests that tumoral cells could be transported to the nose by the pulmonary vascular and lymphatic circulation, and the almost valve less vertebral venous plexus. Another possible mechanism of nasal tip metastasis is that when the intrathoracic pressure is greatly increased, blood-borne emboli pass through venous plexi and drift upwards to the venous

sinuses of the skull. The pterygoid plexus, cavernous sinus, and pharyngeal plexus communicate with the vertebral system, and may transport tumor cells to the nose.

We present this presentation case of 'clown nose' from lung cancer in Tunisian patient. He had a delayed diagnostic and consultation after 11 months that could explain the metastatic spread to the skin and brain. Furthermore, our patient has 2 synchronous cancers in lung and thyroid.

Conclusion

A biopsy of the cutaneous metastasis may be helpful to confirm the suspected primary tumor avoiding invasive diagnostic procedures.

Caution must be made when approaching the diagnosis of tumor on the nose with or without known internal cancer, especially in elderly patient.

Contributors

Harhira Imen and Boussem Hamouda: Design of the work, collection and analysis of the case, drafting the case; Rachdi Haifa and Boussem Hamouda: concept of the work, revising the work, accuracy of the work. RH will act as guarantor of study. Both authors approved the final version of this manuscript.

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