

# "Clown nose" as first manifestation of squamous cell carcinoma of the lung

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## Abstract

**Background:** Skin metastases occur in 0.7% to 9% of all patients with cancer and are usually considered a late event in the evolution of most visceral carcinomas. The development of a nodular metastatic lesion on the nasal tip is known as clown nose sign.

**Main observation:** We report a 64-year-old man that developed a nodular lesion on his nasal tip as first manifestation of squamous lung carcinoma.

**Conclusion:** The biopsy of the cutaneous metastasis may be helpful to histopathologically confirm the suspected primary tumour avoiding invasive diagnostic procedures. (*J Dermatol Case Rep.* 2017; 11(1): 9-11)

## Keywords:

Clown nose, face, lung cancer,  
metastases, nodule, nose, skin

## Introduction

Skin metastases are uncommon and are usually considered a late event in the evolution of most visceral carcinomas. Their frequency has been reported to range between 0.7% to 9% of all patients with cancer and when appear the disease is usually disseminated.<sup>1,2</sup> However, in some cases cutaneous metastasis may be the first manifestation of a visceral neoplasm.<sup>3</sup> The development of a nodular metastatic lesion on the nasal tip is known as clown nose sign. We report a patient that developed a nodular lesion on his nasal tip as first manifestation of squamous carcinoma of the lung.

## Case report

A 64-year-old man presented to the emergency department with progressive left hemiparesia from 15 days ago and a nasal tip tumour of 3 months evolution. He had smoked 40 cigarettes per day for 40 years. He also suffered from chronic bronchitis, hypertension, hyperuricemia, and ische-

mic cardiopathy. At admission, the patient also complained of asthenia, anorexia, and discrete hemoptysis. The patient was admitted to the hospital and at this point the Dermatology department was consulted. On physical examination

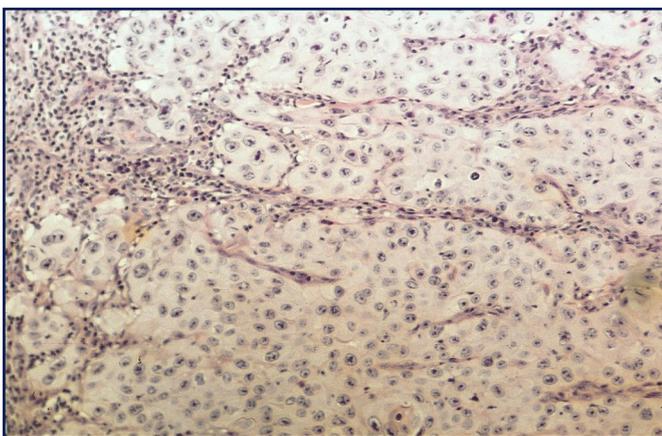


**Figure 1**  
Quickly enlarging spherical tumoral lesion on the tip of the nose.

a solitary, well demarcated, nodular lesion was observed on the tip of the nose. The lesion was a 2 cm round, reddish tumour with yellowish small nodules suggestive of keratin cysts (Fig. 1 and 2). Biopsy of the lesions revealed a dermal proliferation of atypical cells with squamous differentiation not connected with the overlying epidermis (Fig. 3). A cranial computer tomography was consistent with cerebral me-



**Figure 2**  
Quickly enlarging spherical tumoral lesion on the tip of the nose.



**Figure 3**  
Dermal proliferation of atypical cells with squamous differentiation.

tastasis. Chest X-ray and thoracic computer tomography showed a mass in the upper right lobule of the lung with mediastinal infiltration and right paratracheal lymphadenopathy. A bone scan showed hot areas in the left scapula and left femur. A diagnosis of metastatic squamous cell carcinoma of the lung was made. The patient received only palliative treatment and died 1 month after admission.

## Discussion

Lung cancer is the one of the most frequent source of cutaneous metastases in men.<sup>3</sup> However, in one study of 2080 cases of lung cancer, macroscopic metastases to the skin were found in only 1,5% of patients.<sup>4</sup> Interestingly, although it cannot be considered a frequent event, when lung carcinoma spreads to the skin it usually occurs before or simultaneously to the diagnosis of the primary tumor.<sup>3</sup> In one series, the underlying cancer had been undiagnosed in 60% of patients with lung cancer and cutaneous metastasis.<sup>1</sup> Another study found that in 11 of 21 patients (52%) with cutaneous metastases from lung cancer, the skin metastasis was the first site of extranodal involvement.<sup>2</sup>

The nasal tip is a very unusual location of cutaneous metastases. The development of clown nose has been described in a few patients with chordoma,<sup>5</sup> kidney tumor,<sup>6-8</sup> hepatocellular carcinoma,<sup>9</sup> seminoma,<sup>6</sup> leukemia,<sup>10</sup> breast cancer,<sup>6,11</sup> cervix carcinoma,<sup>12</sup> and esophageal carcinoma.<sup>13,14</sup> Several cases has been described originated from lung carcinoma, including anaplastic large cell carcinoma and small cell carcinoma.<sup>15-18</sup> Squamous lung cell carcinoma with nasal tip metastasis have also been reported.<sup>16,19-21</sup>

Although cutaneous metastatic lesions to the nasal tip are rare there are several signs that may suggest a metastatic spread of an internal malignancy. Signs suggestive of metastasis include rapid growth, lack of local inflammatory response, and intact overlying epithelium in the early stages.<sup>20</sup>

## Conclusion

Our patient developed the cutaneous lesion before systemic symptoms of lung cancer and the cutaneous biopsy was helpful to histopathologically confirm the suspected primary tumour avoiding invasive diagnostic procedures.

## References

1. Brownstein MH, Helwig EB. Patterns of cutaneous metastasis. *Arch Dermatol.* 1972; 105: 862-868. PMID: 5030236.
2. Lookingbill DP, Spangler N, Helm KF. Cutaneous metastases in patients with metastatic carcinoma: a retrospective study of 4020 patients. *J Am Acad Dermatol.* 1993; 29 (2 Pt 1): 228-236. PMID: 8335743.

3. Marcoval J, Moreno A, Peyrí J. Cutaneous infiltration by cancer. *J Am Acad Dermatol.* 2007; 57: 577-580. PMID: 17368634.
4. Ask-Upmark E. On the location of malignant metastases with special regard to the behaviour of the primary malignant tumours of the lung. *Acta Pathol Microbiol Scand.* 1932; 9: 239-248.
5. Cesirano AM, Maiorana A, Annessi G, Collina G. Cutaneous metastasis of chordoma. *Am J Dermatopathol.* 1995; 17: 603-605. PMID: 8599477.
6. Friedman I, Osborn DA. Metastatic tumours in the ear, nose, and throat region. *J Laryngol Otol.* 1965; 79: 576-591. PMID: 14335137.
7. Bernstein JM, Montgomery WW, Balogh K Jr. Metastatic tumors of the maxilla, nose and paranasal sinuses. *Laryngoscope.* 1966; 76: 621-650. PMID: 5930356.
8. Tolia BM, Whitmore WF Jr. Solitary metastasis from renal cell carcinoma. *J Urol.* 1975; 114: 836-838. PMID: 1195458.
9. Knight TE, Woo AS Jr, Blaisdell JM. Hepatocellular carcinoma invasive to chest wall. *Int J Dermatol.* 1992; 31: 273-276. PMID: 1321795.
10. Brama I, Goldfarb A, Shalev O, Ariel I. Tumour of the nose as a presenting feature of leukemia. *J Laryngol Otol.* 1982; 96: 83-87. PMID: 6948901.
11. Soyer HP, Cerroni L, Smolle J, Kerl H. "Clown-nose". Hautmetastase eines mammakarzinoms. *Z Hautkr.* 1990; 65: 929-931. PMID: 2291293.
12. Itin PH, Heitzmann F, Stamm B. Metastasis to the nasal tip from a cervical carcinoma. *Dermatology.* 1999; 199: 171-173. PMID: 10559590.
13. Chau CH, Siu WT, Li MK. Nasal tip metastasis from esophageal carcinoma. *Can J Surg.* 2002; 45: 224-225. PMID: 12067183.
14. Al-Ani SA, Hernon C, Sillitoe AT. An unusual skin metastasis: esophageal squamous cell carcinoma metastasizing to the nose following nasogastric tube suture. *Plast Reconstr Surg.* 2005; 116: 683-685. PMID: 16079730.
15. Vieira Mota A, Correia O, Resende C, Acevedo F, Mesquita-Guimarães J. Nasal tip metastasis revealing a Pancoast tumour. *Br J Dermatol.* 1998; 138: 559-560. PMID: 9580832.
16. Gault DT, Subbuswamy SG. Metastatic tumors of the nasal tip. *Br J Plast Surg.* 1985; 38: 570-574. PMID: 2996670.
17. Rubinstein RY, Baredes S, Caputo J, Galati L, Schwartz RA. Cutaneous metastatic lung cancer: literature review and report of a tumor on the nose from a large cell undifferentiated carcinoma. *Ear Nose Throat J.* 2000; 79: 96-97, 100-101. PMID: 10697933.
18. De Simoni I, Iacovelli P, Lunghi F, Peris K, Climenti S. "Clown nose" as a first manifestation of lung carcinoma. *Acta Derm Venereol.* 1997; 77: 406-407. PMID: 9298146.
19. French N, Williams T, Callen J. Rhinophyma-like swelling of the nose due to squamous cell carcinoma of the lung metastatic to the nasal tip: a case report. *Eur J Dermatol.* 1995; 5: 131-134.
20. Hammert WC, Champagne L, Heckler FR. Metastatic squamous cell carcinoma of the nasal tip: a case report. *J Oral Maxillofac Surg.* 1999; 57: 186-189. PMID: 9973129.
21. Camarasa Escrig A, Chiner Vives E, Sancho Chust JN. Clown nose as an initial manifestation of squamous-cell lung carcinoma. *Arch Bronconeumol.* 2009; 45: 60-61. PMID: 19186301.