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KISA RAPOR
SHORT REPORT

Skin metastasis from small cell lung cancer

Koichi KURISHIMA¹
Katsunori KAGOHASHI¹
Gen OHARA¹
Kunihiko MIYAZAKI²
Mio KAWAGUCHI²
Norio TAKAYASHIKI³
Hiroaki SATOH¹

¹ Department of Respiratory Medicine, Mito Medical Center, Tsukuba University, Ibaraki, Japan

¹ Tsukuba Üniversitesi Mito Tıp Merkezi, Solunum Hastalıkları Anabilim Dalı, Ibaraki, Japonya

² Department of Respiratory Medicine, Faculty of Medicine, Tsukuba University, Ibaraki, Japan

² Tsukuba Üniversitesi Tıp Fakültesi, Solunum Hastalıkları Anabilim Dalı, Ibaraki, Japonya

³ Department of Pathology, Mito Medical Center, Tsukuba University, Ibaraki, Japan

³ Tsukuba Üniversitesi Mito Tıp Merkezi, Patoloji Anabilim Dalı, Ibaraki, Japonya

SUMMARY

Skin metastasis from small cell lung cancer

Patients with skin metastasis always had disseminated metastases in many organs. We herein report an unusual case with skin metastasis from small cell lung cancer (SCLC). The patient was treated with platinum-containing chemotherapy, and the response to the therapy was evaluated as partial response. The patient had slowly progressive disease and died of SCLC 16 months after the diagnosis of the diseases. If skin lesions, whether it may be typical or not, are found in SCLC patients, biopsy from the lesion would be considered to perform. Although trunk may be the most common sites, it is important to suspect such metastasis occurs in patients with SCLC.

Key words: Skin metastasis, small cell lung cancer

ÖZET

Küçük hücreli akciğer kanseri, cilt metastazı

Cilt metastazı olan olgularda daima birçok organda yaygın metastazlar bulunmaktadır. Burada, küçük hücreli akciğer kanser (KHAK)'li ve cilt metastazlı nadir görülen bir olgu sunulmaktadır. Hasta platin- bazlı kemoterapi ile tedavi edildi ve tedavi yanıtı, parsiyel yanıt olarak değerlendirildi. Hastalık yavaş seyirli bir progresyon gösterdi ve olgu tanıdan 16 ay sonra kaybedildi. KHAK'li hastalarda tipik olsun olmasın deri lezyonları saptandığında, biyopsi düşünülmelidir. En sık tutulum bölgesi gövde olmasına rağmen, KHAK'li hastalarda böyle lezyonlar görüldüğünde şüphelenilmesi önemlidir.

Anahtar kelimeler: Cilt metastazı, küçük hücreli akciğer kanseri

Yazışma Adresi (Address for Correspondence)

Dr. Hiroaki SATOH

Tsukuba Üniversitesi Mito Tıp Merkezi, İç Hastalıkları Anabilim Dalı, Miya-machi 3-2-7, Mito, 310-0015, IBARAKI - JAPAN

e-mail: hirosato@md.tsukuba.ac.jp

INTRODUCTION

Skin metastasis implies that cancer cells may reach many sites of the whole body via the bloodstream and the lymphatic system. We herein report an unusual case with skin metastasis from small cell lung cancer (SCLC).

CASE REPORT

A 66-year-old woman with a 40-pack/year history of smoking presented with skin nodule on the back and lumbago. Physical examination revealed a painless, movable and round solitary nodule of approximately 15 mm in diameter on her right back. She had knock pain on lumbar spine. Chest radiography and CT scan revealed a mass of 25 mm in diameter in right middle lobe with ipsilateral mediastinal lymph node swelling (Figure 1). Bone scan showed lumbar spinal metastases. Biopsy specimen of the skin lesion was performed. Immunohistochemical staining with thyroid transcription factor-1 and synaptophysin were positive (Figure 2). Together with histopathological findings, the patient was diagnosed as having skin metastasis from SCLC. A transbronchial curetting cytology from the mass in right lung was done and it was confirmed same histopathological findings (Figure 3). The diagnosis of SCLC with bone and skin metastases was established. She was started on chemotherapy using carboplatin and etoposide and irradiation to the lumbar spine. The response to the chemotherapy was evaluated as partial response (Figure 4). The patient had slowly progressive disease and died of SCLC 16 months after the diagnosis of the diseases.

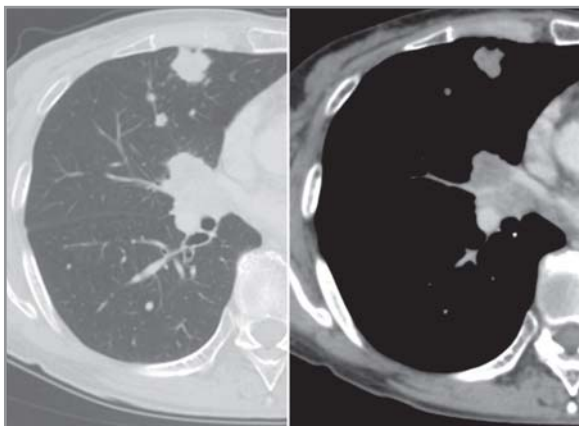


Figure 1. Chest radiography and CT scan revealed a mass of 25 mm in diameter in right middle lobe with ipsilateral mediastinal lymph node swelling.

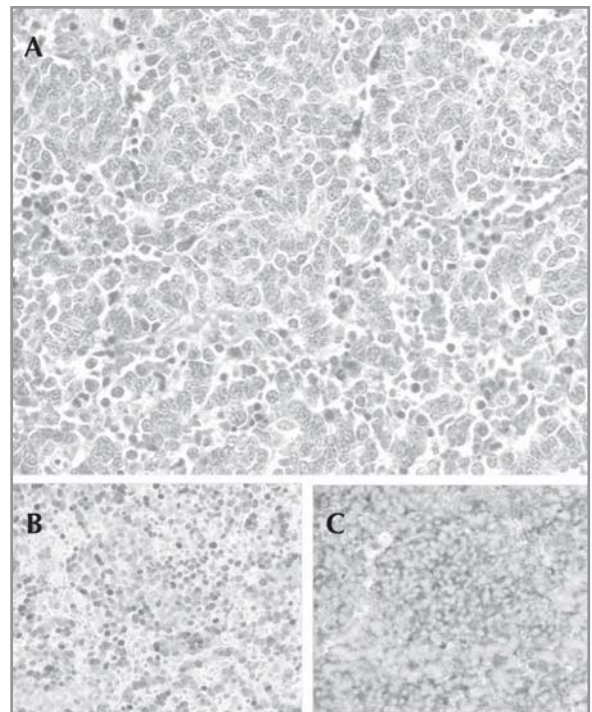


Figure 2. Microscopic findings of biopsy specimen of the skin lesion (A) (Hematoxylin-Eosin staining). Positive immunohistochemical staining with thyroid transcription factor-1 (B) and synaptophysin (C).

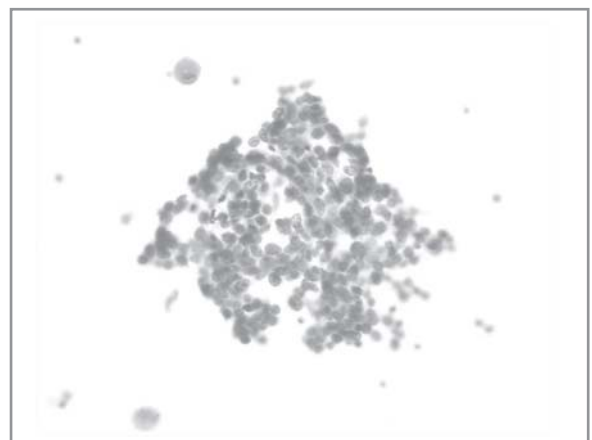


Figure 3. Histopathological findings of a transbronchial curetting cytology from the mass in right lung, which was confirmed same histopathological findings.

DISCUSSION

In the PubMed database, we found 20 cases with skin metastasis from SCLC (1-12). Among them, precise clinical courses were described in 15 cases (2-6,8-11). Table 1 showed the clinical features of SCLC

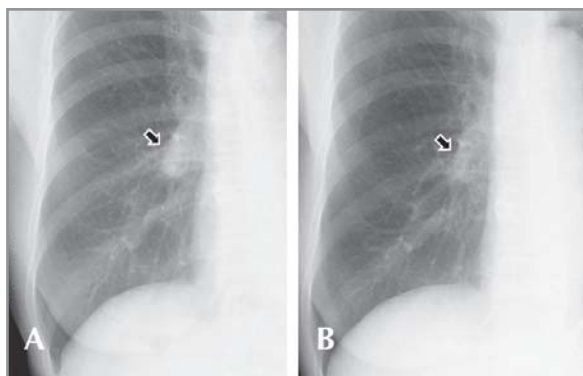


Figure 4. Pre-treatment (A) and post-treatment (B) of chest radiographs.

patients with skin metastasis. Same as the other internal cancers, most common sites of the skin metastasis

from SCLC are the trunk of the body such as chest and back but we found a case with arm and facial skin metastasis (1-5). Size of skin metastasis was 5-50 mm in diameter (1-5). Most of them were less than 20 mm in diameter (2,3,5,6,9-11). Various shapes were found in skin metastasis such as nodular, inflammatory, and the most lesions were firm, raised, and hemispherical, covered by an intact epidermis, while some patients had ulcerated lesions (2,3,6,8,9). In our patient, it was a painless, movable and round solitary nodule of approximately 15 mm in diameter. Upper lobe of the lung on either side was the most common primary site of SCLC (2,4,9,10). There were only four patients whose primary site of SCLC was lower lobe of the lung (2,3,6,11). There was no patient whose primary site was middle lobe of the lung as observed in our case.

Table 1. Clinical features of small cell lung cancer patients with skin metastasis

Age	Gender	Skin lesion		Primary site	Other metastatic sites	Therapy	Survival (months)		References no.
		Size (mm)	Location				From Dx of SCLC	From Dx of skin met	
70	M	20	Chest	LUL	Bone	Chemo	18	17	2
47	F	20	Inguinal	RUL	Brain, liver	Chemo	9	0.5	2
61	M	50	Inguinal	RLL	Brain, liver	Chemo	6	6	2
56	M	30	Chest	RUL	Brain, liver, pancreas, lung, bone	Chemo	6	6	2
60	F	5-20	Trunk, arm	RLL	Stomach	SC	-	-	3
65	F	-	Chest	RUL	None	Chemo, irradi	13	13	4
68	F	-	Chest, arm	RUL	Liver, bone	Chemo, irradi	6	1	4
51	M	15	Neck	-	Brain	Irrad	19	19	5
82	M	5,12	Back, abdomen	-	Liver	SC	1	1	5
71	M	10	Face	RLL	None	Chemo	-	-	6
65	M	-	Face	-	Oral mucosa	Chemo, irradi	-	-	8
64	M	15	Cheek	LUL	None	Chemo, irradi	12	12	9
69	M	10, 10	Back, abdomen	LUL	Liver	-	-	-	10
62	M	30	Abdomen, back	RUL	Adrenal gland	-	-	-	10
59	M	30	Shoulder	LLL	None	Chemo	15	6	11
66	F	15	Back	RML	Bone	Chemo	16	16	Our case

Dx: Diagnosis, met: Metastasis, M: Male, F: Female, LUL: Left upper lobe of the lung, RUL: Right upper lobe of the lung, RLL: Right lower lobe of the lung, RML: Right middle lobe of the lung, chemo: Chemotherapy, irradi: Irradiation, SC: Supportive care.

Among the 15 SCLC patients, skin metastasis was found only one site in 12 patients (2,6,9-11). The rest of the three patients had skin metastases at two or more sites (3,5,10). Interestingly, 11 (73.3%) of the 15 patients had other metastatic sites than skin. The three of the commonest sites were liver, bone, and brain (2,4,5,10). However, four patients had skin metastasis without any metastatic sites (2,6,9,11). The explanation why distant metastasis was defined by skin lesion in these patients was beyond our knowledge. This might imply that sub-centimeter skin metastatic lesions cannot found in physical examination even cancer cells may reach many sites of the whole body via the bloodstream and the lymphatic system, or that specific mechanism may be exist to develop such a rare metastasis even the progression of the primary malignancy. In our patient, skin metastasis was found in the back, which was the most common site of skin metastasis, but it developed in only one site, and there was not found any additional skin metastasis in her clinical course.

With regard to the treatment for the skin lesion, surgical resection of the lesion and systemic chemotherapy were the common and irradiation to the skin metastasis was performed in one patient (2,4-6,8,9). In our patient, we performed surgical resection of the lesion and systemic chemotherapy, and there was no recurrence in the skin lesion. Survival time after the diagnosis of skin metastasis was short because patients with skin metastasis always had disseminated metastases in many organs. However, four of them survived more than a year, and our patient had slowly progressive disease and died 16 months after the diagnosis of skin metastasis (1-5). There may be some slowly progressive SCLC patients or some chemotherapy sensitive SCLC patients among those with skin metastasis.

As shown in Table 1, skin metastasis was found at the time of initial diagnosis of SCLC in 6 patients including our case (2,4,5,9). Skin metastasis developed 1 to 9 months after the diagnosis of SCLC during their clinical courses in 4 patients (2,4,11). Taking these results into consideration, chest physicians should recognize and be alert on the development of skin metastasis not only at the time of diagnosis and in their clinical courses, although it is very rare. If skin

lesions, whether it may be typical or not, are found in SCLC patients, biopsy from the lesion would be considered to perform. It is important to suspect such metastasis occurs in patients with SCLC not only in the trunk, the most common site, but also in others sites.

CONFLICT of INTEREST

None declared.

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