

## Basal Cell Carcinoma of the Scalp with Lung, Bone and Lymph Node Metastasis in a Korean Woman

Sang Hee Lee, M.D., Jong Hoon Kim, M.D., Mi Ryung Roh, M.D.

Department of Dermatology and Cutaneous Biology Research Institute, Yonsei University College of Medicine, Seoul, Korea

Metastatic basal cell carcinoma (MBCC) is very rare with incidences estimated to range from 0.0028% to 0.5% in the Caucasian population. The incidence of basal cell carcinoma is known to be much lower in Asian populations including Koreans. We present a rare case of metastatic BCC in a Korean woman who showed lymph node, lung and bone metastasis, with a review of the MBCC cases reported in the Korean literature. (**Korean J Dermatol 2013;51(5):364~367**)

**Key Words:** Korean, Metastatic basal cell carcinoma

### INTRODUCTION

Metastatic basal cell carcinoma (MBCC) is extremely rare, with a reported incidence of 0.0028% to 0.5% in Caucasian population<sup>1</sup>. The incidence of basal cell carcinoma is known to be even lower in Asian populations including Koreans. In the English literature, there is only one report of metastatic BCC arising in the Korean population so far<sup>2</sup>.

In 1951, Lattes and Kessler described the most widely accepted criteria for the diagnosis of MBCC: the primary tumor must be cutaneous and not of mucosal or glandular tissue; the primary and metastatic tumor must share the same histologic subtype; and metastasis must be at a distant site and cannot be a result of direct extension. So far, less than 300 cases fulfilling the criteria for MBCC have been reported in world literature<sup>3</sup>. Here, we present a case of BCC metastasizing to the lung, bone, skin and regional cervical lymph nodes in a Korean woman.

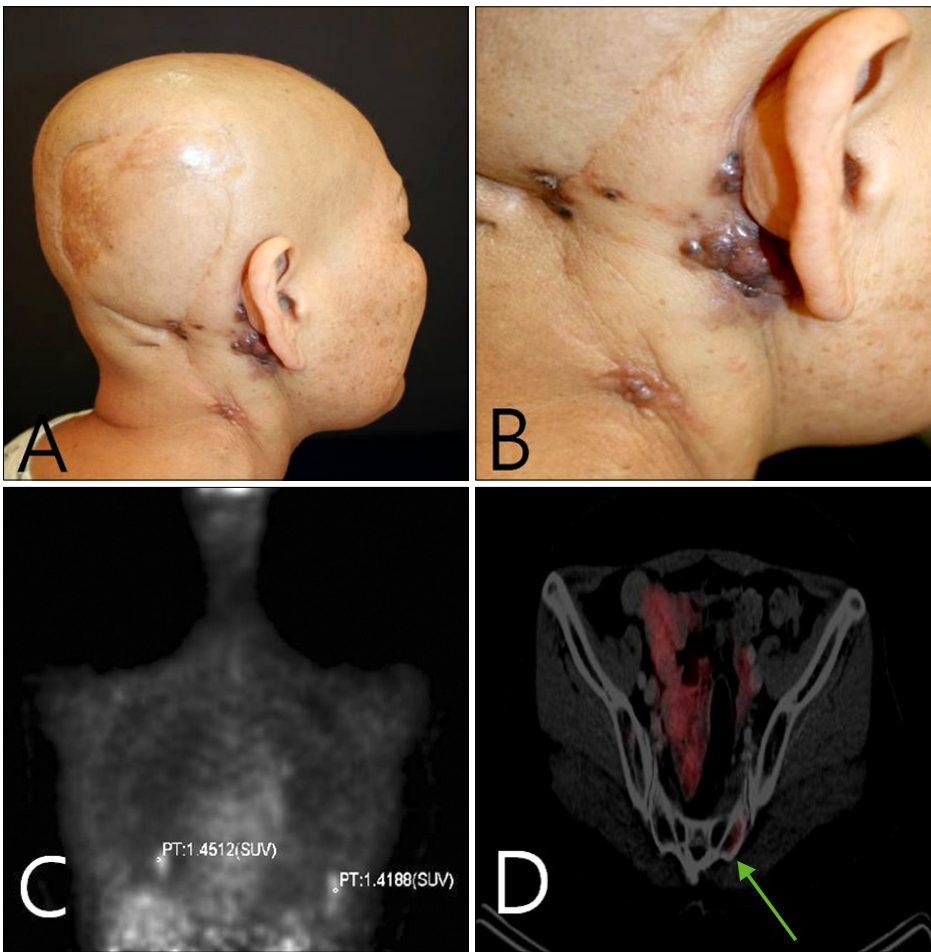
### CASE REPORT

A 62 year-old female was referred from the Oncology Department for the evaluation of her skin lesions. She presented with multiple grouped waxy nodules on the posterior neck and postauricular area (Fig. 1). She had a history of a scalp mass diagnosed as BCC seven years ago, which was resected and primarily reconstructed with a split-thickness skin graft. After three surgically removed local recurrences and radiotherapy, the tumor showed local recurrence once again, this time with the cervical lymph node and multiple lung and bone metastases. Ultrasonography of the neck showed multiple hypoechoic nodules suspicious of metastatic lymph nodes. PET whole body scan with CT was performed, which revealed tumor recurrence of occipital scalp with hematogeneous metastatic lung nodules on the left upper lobe and both lower lobes. Bone metastasis lesions were located on the left lower sacrum and on multiple levels of the thoraco-lumbar spine (Fig. 1C, D). Wide excision of the scalp lesion was performed and chemotherapy was started.

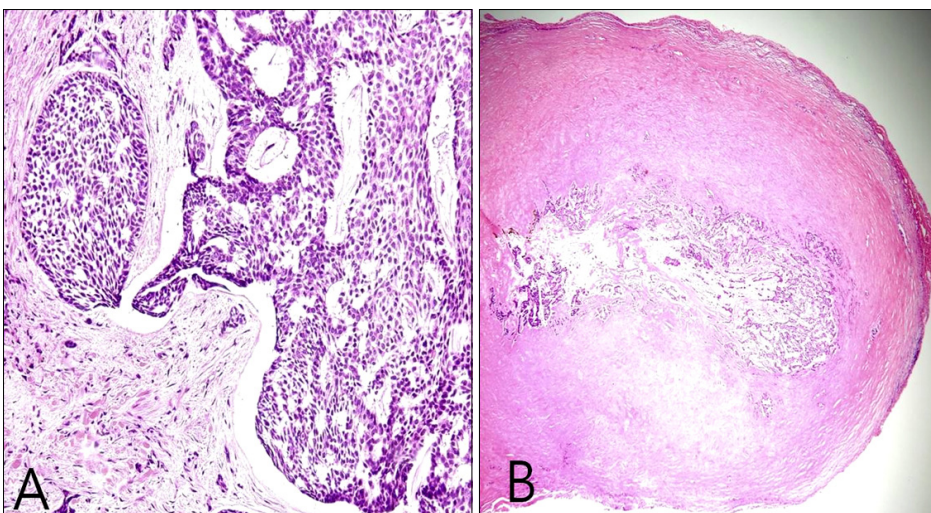
Chemotherapy with cisplatin and 5-fluorouracil resulted in poor response and the patient underwent a total of 14 cycles of various regimens including paclitaxel, carboplatin, adriamycin, cisplatin, ifosfamide and etoposide. Despite the changes of chemotherapy regimen, the patient developed multiple postauricular nodules and a neck mass which was detected four months before she was referred to the Dermatology Department. Biopsy of the mass revealed multiple islands of tumor cells showing peripheral palisading,

<Received: June 11, 2012, Revised: July 30, 2012, Accepted for publication: August 7, 2012 >

Corresponding author: Mi Ryung Roh, M.D., Department of Dermatology and Cutaneous Biology Research Institute, Yonsei University College of Medicine, Gangnam Severance Hospital, 146-92 Eonjuro 211, Gangnam-gu, Seoul 135-720, Korea. Tel: 82-2-2019-3360, Fax: 82-2-3463-6136, E-mail: karenroh@yuhs.ac



**Fig. 1.** (A) Multiple grouped small waxy nodules are seen on the neck and postauricular area, (B) some presenting with telangiectatic vessels on the surface, (C) PET whole body scan with CT revealed metastatic lesions on both lower lung fields, and (D) on the lower sacrum (green arrow).



**Fig. 2.** (A) A biopsy specimen showed dense infiltration of basoid cells with peripheral palisading and clefting artifact (H&E, original magnification  $\times 100$ ). (B) Histopathologic examination of the lymph node specimen revealed multiple tumor masses (H&E original magnification  $\times 40$ ).

with mitotic and apoptotic figures, and it was confirmed as basal cell carcinoma (Fig. 2A).

Basal cell carcinoma was removed by wide excision and

palpable lymph node was excised for histologic examination which was revealed as a metastatic lymph node (Fig. 2B). On her one month post-operative follow up, multiple pos-