

## 기저편평세포암의 치험례

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### Clinical Experience of Basosquamous Cell Carcinoma

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**Purpose:** Basosquamous carcinoma is a rare malignancy, with features of both basal cell carcinoma and squamous cell carcinoma. It is considered as aggressive tumor with a high risk of recurrence and metastases. Authors report a case of basosquamous cell carcinoma.

**Methods:** A 72 year-old man, who had an erythematous ulcer on his left auricle, described a slow growing lesion, starting at the posterior surface of the superior helix with a steady increase in size during the past 10 years. At operation, auricular cartilage was grossly invaded by the tumor and was, therefore, amputated with tumor-free margins.

**Results:** Histopathologic examination was revealed a basosquamous cell carcinoma. On positron emission tomography/computed tomography (PET/CT) and neck CT were negative for signs of further nodal involvement or metastases to other organs. At follow-up 6 months later, his wounds were noted to be well healed, with no evidence of local recurrence or identifiable metastases.

**Conclusion:** Because basosquamous cell carcinoma has a significant potential to recur and metastasize, surgical excision for this type of carcinoma should be more extensive than that performed for conventional basal cell carcinoma or squamous cell carcinoma. In addition, regional lymph nodes should be monitored and close follow-up should be carried out.

**Key Words:** Basosquamous cell carcinoma

Received October 30, 2010

Revised May 2, 2011

Accepted May 23, 2011

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## I. INTRODUCTION

Skin cancer is a neoplasm showing a very high incidence.<sup>1</sup> Nonetheless, as it grows in a visible area and it grows slowly in comparison with other neoplasms, it could be detected readily. Hence, the possibility of complete cure is high. It has been shown that among skin cancers, basal cell carcinoma is the most common malignant tumors, grows slowly, invades locally, responds well to therapy, and rarely metastasizes.<sup>1</sup> Squamous cell carcinoma is the second frequent skin cancer, its progression rate is slow.<sup>2</sup>

Basosquamous cell carcinoma is a tumor with the combination pathohistological characteristic of basal cell carcinoma and squamous cell carcinoma. It has been shown to develop metastasis more readily than basal cell carcinoma or squamous cell carcinoma, and resistant to radiation therapy.<sup>3-6</sup>

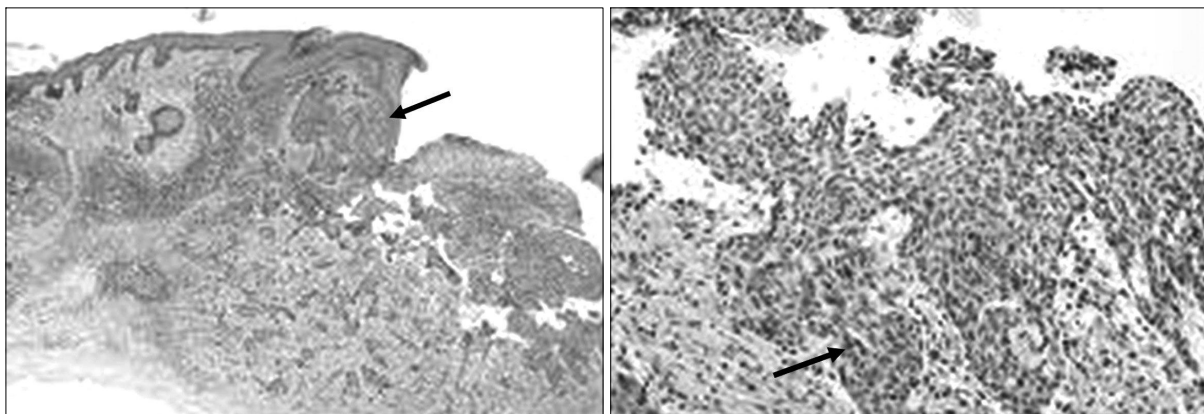
Basal cell carcinoma and squamous cell carcinoma developing in the skin are well known. In contrast, basosquamous cell carcinoma is difficult to classify because of its rarity and pathological confusion, and thus the pathology and behavior of basosquamous cell carcinoma has not been well characterized. The high metastatic potential of basosquamous cell carcinoma has been reported, and thus it could be treated appropriately only by understanding basosquamous cell carcinoma sufficiently and aware the risk and prognosis of the tumor.<sup>3,6</sup> Recently, we experienced a 72 years old male patient developed basosquamous cell carcinoma in the left auricle, and report the case.

## II. CASE

A 72-years-old male patient visited our outpatient clinic for slowly developed ulcer in the left auricle from approximately 10 years ago (Fig. 1). In the past disease history, the lesion was small initially. Since it did not impede routine life, it was not treated specially, and the size of lesion was increased gradually. Nonetheless, the



**Fig. 1.** (Left) A 72-year-old man was presented with erythematous ulcer on the left helical area. (Center) Operative finding was shown the extent of lesion that auricular cartilage was grossly invaded by the tumor. (Right) The lesion was amputated with tumor-free margins.



**Fig. 2.** Biopsied specimen demonstrating the biphenotypic basaloid neoplasm. (Left) In the superficial portion of the lesion (arrow) were large tumour islands and stands that resembled fairly conventional basal cell carcinoma (Hematoxylin and eosin stain,  $\times 40$ ). (Right) In the deep portion of the lesion, tumour islands were admixed with more atypical tumour demonstrating higher grade cytologic atypia and prominent nucleoli (arrow) (Hematoxylin and eosin stain,  $\times 100$ ).

lesion showed spontaneous hemorrhage from 1 month prior to the visit. Incisional biopsy was performed in the department of dermatology at our hospital. It was reported as basal cell carcinoma and thus transferred to the department of plastic surgery. In physical examination, the lesion was  $2.0 \times 1.0$  cm in size, and without pain. Palpable lymph node in the neck and the axilla were absent, and special findings were not detected by neck computed tomography. According to the American Joint Committee on Cancer, the tumor was classified as stage I (T1N0M0). Under anesthesia, excisional biopsy was performed and histological tests were consigned to the department of pathology. The tumor showed the findings invaded to the auricular cartilage below the lesion. The result of histopathological tests show that it was well-differentiated basosquamous cell carcinoma with the histological characteristic of basal cell carcinoma and squamous cell carcinoma, and the tumor invaded the deep tissue without perineural invasion (Fig. 2). Therefore, by performing the wide excision including approxi-

mately 1.0 cm normal tissues, the auricular cartilage and the upper helix were amputated. In regard to the tissues resected during surgery, the adjacent area of the resection surface was confirmed to be free of tumors by frozen biopsy. In clinicopathological tests, all biochemical test values were within normal ranges. In positron emission tomography compute tomography (PET/CT), special findings were not detected (Fig. 3). The result of the postsurgical follow-up observation for 6 months did not show the findings of recurrence or metastasis, and the patient is under the follow-up observation continuously (Fig. 4).

### III. DISCUSSION

In the past, basosquamous cell carcinoma as a type of skin cancer was controversial. It was described as an different tumor from basal cell carcinoma and squamous cell carcinoma. Thus, It was termed as collision tumor, or basal cell carcinoma that could form keratin, hence,

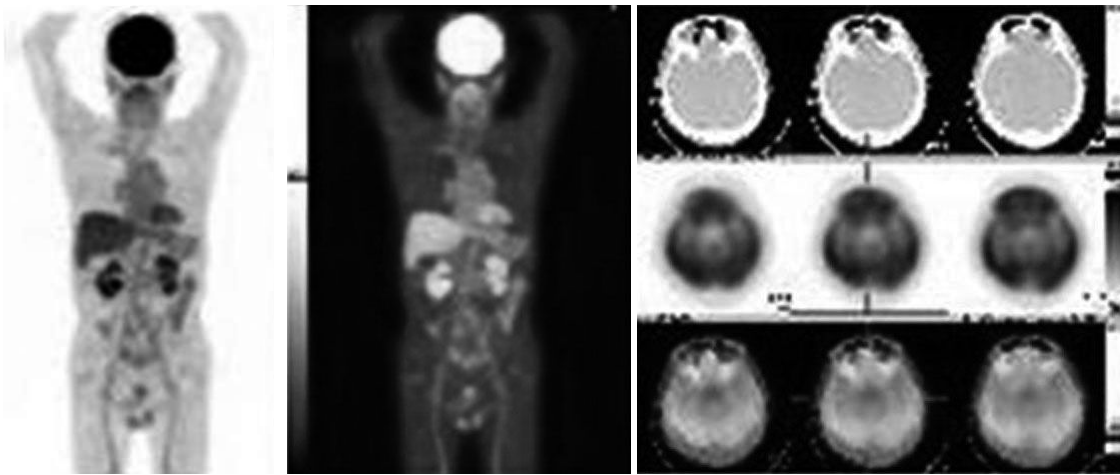


Fig. 3. On whole body PET/CT, there was no shown the hypermetabolic lymph nodes.



Fig. 4. Postoperative 6 months view.

termed as keratinising basal cell carcinoma.<sup>7</sup> In addition, since the differentiation from basal cells to squamous epithelial cells is observed frequently, it was considered as its nonspecific findings and it was considered as a characteristic of aggressive basal cell carcinoma.<sup>8</sup> Recently, by more pathological studies, it was classified as an independent type of skin cancer with the histological characteristic of basal cell carcinoma and squamous cell carcinoma simultaneously within an identical lesion.<sup>6</sup>

The most widely accepted histological findings of basosquamous cell carcinoma are the scanty cytoplasm, larger and even than typical basal cell carcinoma, and infiltrative growth of basaloid cells with the pale nucleus.

These cells form clusters, and squamous epithelial cells form aggregates within the clusters and scattered in the center of lesion or in the peripheral area.<sup>3,4</sup> In our case, similarly, basal cells with the large and pale nucleus and squamous cells in the deep area formed clusters.<sup>4</sup>

Because of its rarity, the incidence of basosquamous cell carcinoma is not clear, but it has been reported to account for approximately 1.5~2.7% of the entire skin cancers.<sup>3,4</sup> Basosquamous cell carcinoma is relatively rare, nonetheless, it has been reported to be very aggressive and form metastasis readily in comparison with basal cell carcinoma or squamous cell carcinoma. According to Martin et al. among 28 cases of basosquamous cell carcinoma, lymph node metastasis was detected in 5 cases, and pulmonary metastasis was detected in 1 case.<sup>3</sup> Bowman et al. have reported that in 27 cases of basosquamous cell carcinoma, metastasis was developed in 2 cases, and in 228 cases of squamous cell carcinoma, only 2 cases developed pulmonary metastasis.<sup>4</sup> In addition, in squamous cell carcinoma, local lymph node metastasis was reported to be 2~6%.<sup>2</sup> In basal cell carcinoma, local lymph node metastasis in less than 0.1% cases was reported.<sup>1</sup>

Pathophysiologically, it is not clear whether basosquamous cell carcinoma is developed de novo or developed from existing basal cell carcinoma. Costantino et al. have reported that cytologically, basal cells differentiate to squamous cells (squamatization), and initially, basal cell carcinoma was diagnosed, nevertheless, in 80% of metastatic basal cell carcinoma, basosquamous tissues were shown.<sup>8</sup>

Clinically, basosquamous cell carcinoma could not be easily diagnosed. In other words, basosquamous cell

carcinoma is a tumor that could not be distinguished visually from basal cell carcinoma or squamous cell carcinoma, and it has nonspecific clinical features in most cases. It thus could be diagnosed only by histological tests.<sup>6</sup> It has been reported that basosquamous cell carcinoma occurs preferentially in the head and neck area, it occurs frequently in the central face and the paranasal area, and it occurs in the male in their 60s primarily.<sup>3,4</sup> The most important prognostic factors are lymph node invasion, perineural invasion, the male, and lesions bigger than 2 cm, and the recurrence probability is high.<sup>3</sup> In our case, since the patient was male and the size of tumor was 2 cm, we recommend follow-up during 5 years and special attentions should be paid on future recurrence or the possibility of metastasis.

Our case is basosquamous cell carcinoma that despite of histological test reporting as basal cell carcinoma in incisional biopsy, squamous cell carcinoma was detected in the deep resection area. The treatment of basosquamous cell carcinoma is massive resection.<sup>8</sup> In our case, we performed wide excision including approximately 1.0 cm normal tissues with disease-free margins, and the lesion showed the findings of subcutaneous invasion and to cartilages, and thus the lesion area was completely amputated.<sup>8</sup> As adjuvant chemotherapy, topical 5-fluorouracil 5% cream and intensity-modulated RT (IMRT) with beginning in 2000 have been applied, nonetheless, their effectiveness could not be proven.<sup>8</sup> Although there are no available studies regarding the use of adjuvant chemotherapy and radiation therapy for this tumor, it is thought that adjuvant therapy should be considered for high risk lesions, specifically for larger tumors than

2 cm and those with lymphatic or perineural invasion.

In conclusion, although basosquamous cell carcinoma is not common among skin cancers, it requires massive resection early, and the possibility of recurrence as well as metastasis is high, and the comprehensive follow-up observation assessing lymph node metastasis or distant metastasis is required.

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