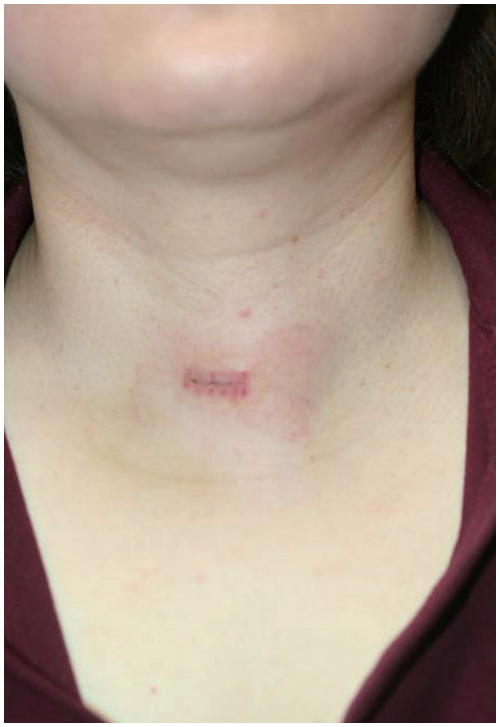

Fig. 2.
The band-like scar tissue disappeared after surgery. The neck and chest moved separately.

Tracheal and soft tissue involving the dermis layer had adhered from the neck to the chest along the left approach track. After removing the scar tissue, the adhered site was covered with deep cervical fascia and subcutaneous fat tissue using an anti-adhesive agent. After surgery, the band-like scar tissue disappeared and symptoms improved (Fig. 2).

This case involved a rare complication from a bilateral axillo-breast approach robotic thyroidectomy. Although robotic surgery has advantages in terms of scar appearance, it can also cause internal scarring under the surgical site. In this case, a scar formed beneath the skin layer. Approaches close to the skin may lead to band-like scar formation. Therefore, especially in dynamic areas like the neck and joint, surgeons should ensure that the surgical approach is not too shallow.

References

1. Kandil E, Hammad AY, Walvekar RR, et al. Robotic thyroidectomy versus nonrobotic approaches: a meta-analysis examining surgical outcomes. Surg Innov 2016;23:317-25.
2. Koo DH, Kim DM, Choi JY, et al. In-depth survey of scarring and distress in patients undergoing bilateral axillo-breast approach robotic thyroidectomy or conventional open thyroidectomy. Surg Laparosc Endosc Percutan Tech 2015;25:436-9.
3. Lee KE, Choi JY, Youn YK. Bilateral axillo-breast approach robotic thyroidectomy. Surg Laparosc Endosc Percutan Tech 2011;21:230-6.

Soft Tissue Reconstruction for Basaloid Squamous Cell Carcinoma on the Hemiface

Jae-Ho Chung, Hi-Jin You, Na-Hyun Hwang, Deok-Woo Kim

Department of Plastic and Reconstructive Surgery, Korea University Medical Center, Korea University College of Medicine, Ansan, Korea

Correspondence: Deok-Woo Kim
Department of Plastic and Reconstructive Surgery, Korea University Ansan Hospital, Korea University College of Medicine, 123 Jeokeum-ro, Danwon-gu, Ansan 15355, Korea
Tel: +82-31-412-4817, Fax: +82-31-475-5074
E-mail: deokwookim@gmail.com

This material was presented, in part, at the 72nd International Congress of the Korean Society of Plastic and Reconstructive Surgeons on November 7-9, 2014 in Seoul, Korea

No potential conflict of interest relevant to this article was reported.

Received: 19 Feb 2016 • Revised: 28 Mar 2016 • Accepted: 4 Apr 2016
pISSN: 2234-6163 • eISSN: 2234-6171
https://doi.org/10.5999/aps.2016.43.6.615
Arch Plast Surg 2016;43:615-618

Basaloid squamous cell carcinoma (BSCC), a rare variant of squamous cell carcinoma, has rarely been reported and is poorly understood. It was first described as a distinct form of carcinoma in 1986 by Wain et al. [1] BSCC is believed to arise from a totipotent primitive cell in the basal layer of the surface epithelium or from the salivary duct lining epithelium. This uncommon malignancy usually appears in the head and neck region, especially in the supraglottic larynx, tongue base, and piriform sinus. However, extensive BSCC involving the whole hemiface is extremely rare.

Although numerous reconstruction techniques for the facial defect including orbital, nasal, labial, and maxillary have been described in the literature, reconstruction of large defects in this area continues to be challenging, as it is difficult to obtain satisfactory results. This case concerns an unusual

instance of BSCC involving the whole hemiface, which was reconstructed by two separate transverse rectus abdominis musculocutaneous (TRAM) free flaps, each with a pedicle.

A 65-year-old woman visited our clinic with a huge ulcerative skin tumor on the right hemiface (Fig. 1). In her past medical history, she had undergone an operation and radiotherapy in China 2 years previously, but was not able to follow up for 2 years afterward. At first, a preliminary multifocal biopsy was performed for pathologic diagnosis. The histologic report indicated that the tumor was mixed with two components, squamous cell carcinoma and a basaloid component with central comedo-type necrosis. Immunohistochemically, basaloid carcinoma cells were positive for AE1/AE3, and p63, but negative for S-100 protein and type IV collagen. Based on the histologic and immunohistochemical findings, the tumor was finally diagnosed as BSCC (Fig. 2). The preoperative laboratory data including chest radiograph were unremarkable. A computed tomographic (CT) scan, magnetic resonance imaging (MRI) and positron emission tomography-computed tomography (PET-CT) were also performed. There were no abnormal enlarged lymph nodes, but bony destruction of the right anterior maxillary wall and mandibular ramus was observed. The result of PET-CT showed a hyper-metabolic skin lesion in the right hemifacial area extending from temporalis to periorbital area to lip, but there was no definite focal enhancement suggesting distant metastasis. Thus, the lesion was staged as T4N0M0.

For the operation, orbital exenteration and radical excision was planned. Under general anesthesia, an initial boundary of excision was drawn from the left medial canthus to the left upper lip vertically and extended from the forehead to the lateral aspect of the right mandible. The tissue that had been removed by the operation was sent from frozen section examination to find out whether the tumor had invaded to the excision interface. In the resection of the temporal bone, malignant tumor cells were found in the underlying dura. Therefore, a neurosurgeon performed dura resection and duraplasty using artificial dura. The final boundary of excision was along the left nasofacial angle medially, the right mandible inferiorly, over the right forehead superiorly, and along the right mastoid process laterally. Additionally, total maxillectomy and lateral mandibulectomy was done. The size of the excised tumor was 15 cm × 12 cm. The pathology showed it to be a moderately differentiated invasive BSCC, and there was a close resection margin of the right orbit and mandible, but no regional lymph node metastases.

In this case, the patient's weight was only 31 kg (body mass index, 15.3), so we chose a bilateral TRAM flap to cover the extensive defect area. The whole skin and bilateral rectus abdominis muscle with each pedicle were obtained from the lower abdomen. The flap was divided in half at the umbilicus, and are referred to hereafter as flaps A and B, as shown in Fig. 3. The facial artery and vein were searched for as recipient vessels for flap A, and the

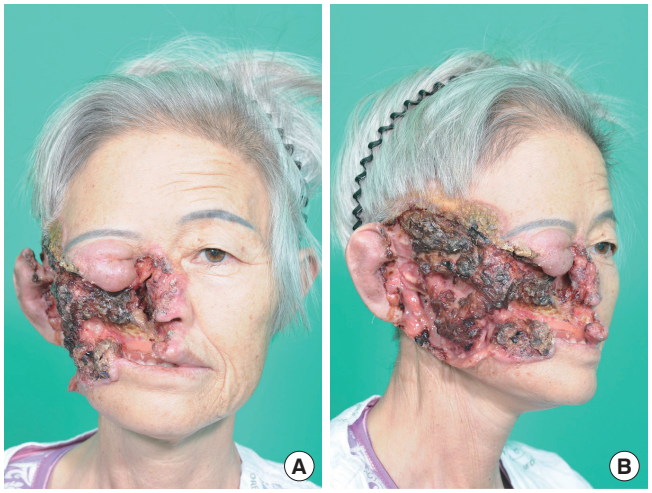

Fig. 1.
(A, B) A 65-year-old woman presented with a huge ulcerative skin tumor on the right hemiface.

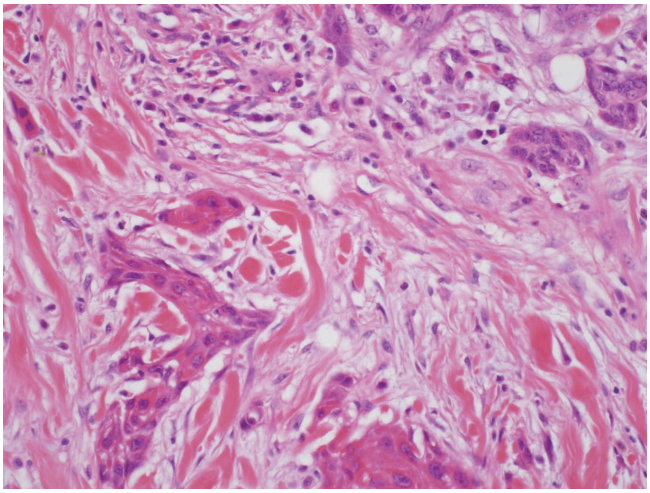

Fig. 2.
H&E stained section (×200), showing a mixture of superficial squamous cells and basaloid cells with a comedo-type necrosis.

Fig. 3.
(A, B) Intraoperative photograph of a patient's abdomen and hemiface. The flap was divided in half at the umbilicus, and the two parts were labeled flap A and B.

superior thyroid artery and internal jugular vein were selected for flap B. Anastomoses were successfully completed. After confirming blood circulation of the flap, the rectus muscle was inset on the maxillary sinus to obliterate, and the subcutaneous muscular layer and skin were sutured. The oral mucosal layer and defected palate were also covered by the folded skin of the flaps. The operative site healed without any specific complication such as flap necrosis or fat necrosis. Following surgery, the patient was treated with additional radiotherapy (5,000 cGy in 20 fractions, 4 weeks). Six months after surgery, the patient is alive with no evidence of disease (Fig. 4).

BSCC is a rare, high-grade variant of SCC. Clinically, this tumor is typically characterized by a neck mass or skin ulceration with pain and palpable cervical lymphadenopathy. Histologically, BSCC was diagnosed on the basis of four principal histologic features: (a) solid groups of cells in a lobular configuration, closely apposed to the surface mucosa, (b) small, closely packed cells with scant cytoplasm; (c) dark, hyperchromatic nuclei without nucleoli; and (d) small, cystic spaces containing mucin-like material [2]. Since first described by Wain et al., around 200 cases have been published and most of them are located in the larynx. To the best of our knowledge, this is the first case report of a BSCC on the whole hemiface.

The clinical course and prognosis of BSCC are thought to be worse than those of typical SCC, based on the high recurrence rates, regional and distant metastases, and lower survival rates [3]. There is no established consensus for treatment. Surgery of the tumor and the lymph nodes associated with radiotherapy is usually seen in most of the literature [4]. However, few studies have evaluated the efficacy of treatment, so further research is needed to better understand such tumors.

Many techniques for reconstruction surgery of the head and neck have been described. However, reconstruction of an extensive facial defect is very challenging, because it is difficult to achieve satisfactory functional and aesthetic outcomes simultaneously. Radial forearm free flaps, latissimus dorsi muscle flaps, and rectus abdominis muscle flaps can be used for facial reconstruction. Among these, the rectus abdominis muscle flap is especially useful when a free flap with sufficient size and volume are required. Additionally, it is possible to obtain vessels with various diameters.

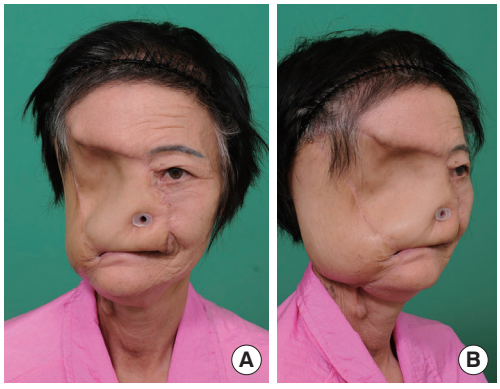

Fig. 4.
(A, B) Postoperative photograph. Six months after the operation.

In summary, we suggest that TRAM be considered as a very useful option for reconstruction with an extensive facial defect. This case was reported because of its rarity, and added to our knowledge of the clinical presentation of BSCC.

References

1. Wain SL, Kier R, Vollmer RT, et al. Basaloid-squamous carcinoma of the tongue, hypopharynx, and larynx: report of 10 cases. Hum Pathol 1986;17:1158-66.
2. Shinno Y, Nagatsuka H, Siar CH, et al. Basaloid squamous cell carcinoma of the tongue in a Japanese male patient: a case report. Oral Oncology Extra 2005;41:65-9.
3. Hirai E, Yamamoto K, Yamamoto N, et al. Basaloid

squamous cell carcinoma of the mandible: report of two cases. Oral Surg Oral Med Oral Pathol Oral Radiol Endod 2009;108:e54-8.
4. Shivakumar B, Dash B, Sahu A, et al. Basaloid squamous cell carcimoma: a rare case report with review of literature. J Oral Maxillofac Pathol 2014;18:291-4.

A Pedunculated Giant Cutaneous Horn Variant Overlying Invasive Squamous Cell Carcinoma of the Scalp

Miliana Vojvodic[1], Kathryn Vanessa Isaac[1], Ronald Harold Levine[1,2], Leila Kasrai[1,2]

[1]*Division of Plastic and Reconstructive Surgery, Department of Surgery, Faculty of Medicine, University of Toronto, Toronto;* [2]*St. Joseph's Health Centre, Toronto, ON, Canada*

Correspondence: Miliana Vojvodic
Division of Plastic and Reconstructive Surgery, Department of Surgery, Faculty of Medicine, University of Toronto, 149 College Street, 5th Floor, Room 508, Toronto, Ontario, M5T 1P5 Canada
Tel: +1-647-823-6230, Fax: +1-416-978-7316
E-mail: m.vojvodic@mail.utoronto.ca

We thank Dr. Janet Malowany, MD FRCP(C) in the Department of Laboratory Medicine at St. Joseph's Health Centre, Toronto, Ontario, Canada for reviewing the histopathology included in this case report.

No potential conflict of interest relevant to this article was reported.

Received: 16 Apr 2016 • Revised: 20 Aug 2016 • Accepted: 6 Sep 2016
pISSN: 2234-6163 • eISSN: 2234-6171
https://doi.org/10.5999/aps.2016.43.6.618
Arch Plast Surg 2016;43:618-619

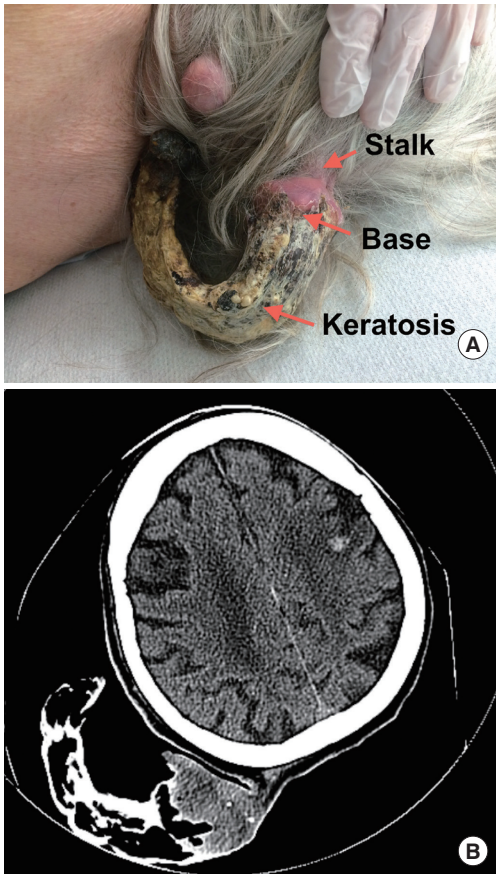

Fig. 1.
(A) Pedunculated giant cutaneous horn based at the occipital scalp. (B) Coronal 2-dimensional computed tomography image showing the lobular giant cutaneous horns base with calcifications attached to subcutaneous tissue by a 1.2-cm stalk.

Giant cutaneous horns (GCH) present as isolated skin lesions with large corneous components of considerable morphologic variation. Despite their striking clinical appearance, prevalence statistics are unknown due to their rarity. Diagnosis of the underlying pathology is essential for appropriate management, as a significant proportion of cutaneous horns arise in the setting of a cutaneous malignancy [1,2].

A morphological variant of a giant cutaneous horn was incidentally discovered on the posterior scalp of a 92-year-old Caucasian female during a hospital admission for a hemorrhagic stroke. The GCH measured 12 cm in straight length and 5.4 cm in base width. The entire lesion was supported by a highly unusual, mobile cutaneous stalk measuring 1.2 cm in length and 1.6 cm in width (Fig. 1A). The onset of growth of the lesion is unknown. The patient had an unremarkable prior medical history. An unenhanced computed tomography scan of the head showed an irregular soft tissue mass attached to the subcutaneous tissues of the posterior scalp without periosteal involvement. Calcifications were noted within the base of the lesion (Fig. 1B). The horn and stalk were excised under local anaesthesia with 0.5-cm margins, and the defect was closed primarily. A gross cross-section of the base of the CGH showed a hollow core surrounded by ridges of calcific debris and dense keratin (Fig. 2A). Histologic examination of the base showed an invasive squamous cell carcinoma with ulceration corresponding to grade 2 moderately differentiated tumor pathology (Fig. 2B). All surgical margins were negative for malignancy.

Images