Case Report

Polypoid Basal Cell Carcinoma on the Nose Tip

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Basal cell carcinoma (BCC) is usually seen on the face as a pigmented nodule. We herein report a patient who presented with a polypoid BCC on the nose tip. Clinically, we suspected adnexal tumor; however, the findings of dermoscopy were consistent with that of BCC. Although the tumor was excised at the stalk, it was completely resected. Since the clinical manifestation was characteristic, we reviewed previously reported polypoid BCCs and found that this tumor can occur at any site, including the trunk and inguinal region, which are not preferential sites for ordinary BCC. There have been no reports of polypoid BCC on the nasal tip. The initial diagnoses varied, including adnexal tumors, and dermoscopic examinations proved useful for suspecting polypoid BCC. Histopathologically, the tumor cells in the resected specimens were within the polypoid area. Although BCC is a common tumor, polypoid BCC has distinct clinical features, and we should keep this rare subtype in mind.

1. Introduction

Basal cell carcinoma (BCC) is one of the most common cancers of the skin. It is seen on skin that is frequently exposed to sunlight. BCC has various clinical appearances and histological features. Some forms of common BCC, such as superficial, nodular, morphoeic, and ulcerated, are clinically recognized [1]. BCC rarely shows a pedunculated form, except for fibroepithelioma, which presents with a fibroma-like manifestation and is located on the back. In addition, polypoid BCC, which differs from fibroepithelioma, was reported by Megahed [2].

We herein report a patient with polypoid BCC presenting with a cystic and pedunculated nodule on the nose tip.

2. Case Report

A 104-year-old male patient was referred to us with a tumor on the nose tip. The nodule had been noted for decades but had rapidly grown over the past two months. An elastic, hard, 40 × 25 × 15-mm, pedunculated red-black nodule with a smooth surface was found on the nose (Figures 1(a) and 1(b)). At first, we suspected an adnexal tumor rather than BCC based on its clinical appearance. However, a dermoscopy examination clearly showed arborizing vessels and black dots on its lower surface (Figure 1(c)), and a biopsy specimen revealed the nodular and cystic structure of basaloid cells, which was consistent with BCC.

The tumor was resected at the base of the stem, and the defect was cauterized with monopolar cautery. Histopathologically, there were two parts to this lesion, and a nodular and adenoid structure of basaloid cells was observed in the dermis (Figure 1(d)). The nuclei of the peripheral cell layer of the tumor masses were arranged in a palisade pattern. A cleft between the tumor and stroma was observed (Figure 1(e)). Cystic spaces containing mucinous and hyalinized tissues were also observed. There were some areas of adenoid differentiation and pseudocyst formation due to tumor necrosis (Figure 1(f)). Comparing the shallow lesions with the deep lesions, the deep lesions were marked by edema and myxomatous changes between tumor cells. Furthermore, immunohistochemical Ber-EP4 staining which is a useful marker for the diagnosis of neoplasms with follicular germinative differentiation was positive. The staining was more strongly positive in shallow lesions than in deep lesions.
Figure 1: Continued.
Figure 1: Clinical manifestation and histopathology. (a) A polypoid nodule was seen on the nose tip. (b) The lateral view shows a stalk on the nose. (c) Dermoscopy shows arborizing vessels and pigmented ovoid nests. (d) A low-power view showed basophilic nests in the dermis (hematoxylin and eosin staining, ×20). (e) A high-power view of the upper square showed basaloid cells with palisading (hematoxylin and eosin staining, ×200). (f) A high-power view of the lower square showed cystic spaces (hematoxylin and eosin staining, ×200). (g) Immunostaining with Ber-EP4 is more strongly positive in shallow lesions.

Table 1: Clinical and pathological summary of PBCC.

| No | Year | Author | Age | Sex | Location            | Size (mm) | Initial diagnosis                                      | DS | Histopathology                  | TR | Others                  |
|----|------|--------|-----|-----|---------------------|-----------|-------------------------------------------------------|----|-----------------------------|----|-------------------------|
| 1  | 1969 | Gaughan | 68  | F   | forearm             | 50 × 40 × 25 | ND                                                   | ND | ND                         | ND | Arising from burn scar |
| 2  | 1985 | Love   | 64  | M   | Back                | 50 × 20 | ND                                                   | ND | Adenoid                   | Yes|                        |
| 3  | 1996 | McElroy | 56  | M   | Shoulder            | 70 × 40 | ND                                                   | ND | Nodular/Adenoid            | ND |                        |
| 4  | 1985 | Morimoto | 69  | M   | Buttock             | 15 × 15 | Pedunculated nevus, soft fibroma, neurofibroma        | ND | Nodular/Adenoid            | Yes| Deep margin positive   |
| 5  | 1995 | Foley   | 62  | F   | Eyelid              | ND       | ND                                                   | ND | ND                         | ND | Keratotic lesion       |
| 6  | 1999 | Megahed | 87  | F   | ear                  | 10 × 8 | BCC, adnexal tumor, amelanotic melanoma               | ND | Nodular                   | Yes|                        |
| 7  | 1999 | Megahed | 76  | F   | Scalp               | 20 × 10 | Adnexal tumor, verruca seborrheic,                    | ND | ND                         | Yes|                        |
| 8  | 1999 | Megahed | 52  | F   | Scalp               | 15 × 10 | Adnexal tumor, pedunculated dermal nevus,             | ND | ND                         | Yes|                        |
| 9  | 1999 | Megahed | 20  | F   | Scalp               | 13 × 8 | Pigmented nevus, fibroma                             | ND | Nodular/Adenoid            | No | Keratotic lesion       |
| 10 | 2001 | Morita  | 33  | F   | Scalp Inguinal region | 15 × 17 | Pigmented nevus, fibroma                             | ND | Nodular/Adenoid            | Yes| Keratotic lesion       |
| 11 | 2003 | Sahin   | 56  | F   | Scalp Inguinal region | 40 × 30 × 25 | Adnexal neoplasm                                     | ND | Nodular                   | No |                        |
| 12 | 2004 | Misago  | 88  | F   | Buttock             | 35 × 20 | PBCC, melanoma, adnexal neoplasm                     | ND | Nodular                   | Yes|                        |
| 13 | 2006 | Wang    | 56  | M   | Perineum            | 21 × 15 | PBCC, acrochordon, nevus                             | ND | Nodular                   | Yes| Multiple lesions, BCNS  |
| 14 | 2007 | Sakai   | 70  | M   | Eyelid              | 7       | Neurofibroma, pigmented nevus                        | ND | Nodular                   | Yes|                        |
| 15 | 2007 | Choi    | 56  | F   | Inguinal region     | 25 × 20 | Pyogenic granuloma                                   | ND | ND                         | Yes|                        |
| 16 | 2007 | Choi    | 69  | F   | calf                | 20 × 20 | Melanoma, seborrheic keratosis                       | ND | Nodular                   | Yes|                        |
| 17 | 2007 | Choi    | 28  | M   | Scalp               | 15 × 10 | Pyogenic granuloma                                   | ND | ND                         | Yes|                        |
tremities, lower extremities, and genital area. The tumor site varied, including sites at the upper exposed areas; however, polypoid BCC preferentially occurs on the scalp, genital areas, and back or buttock area. Polypoid BCC on the nose tip, as in our case, has never been previously reported cases of polypoid BCC described in the English literature (Table 1) [2–18]. In our search, Gaughan [3] reported a giant pedunculated BCC on the forearm which arose from burn scar. Following that report, four more cases had been reported before Megahed’s publication [2]; however, the characteristics of polypoid BCC were not fully described (Table 1). Among the 22 patients, there were 9 men and 13 women. The mean age was 58 years old (20–88, median 57 years old) which was younger than seen with ordinary BCC. The average size of the polyps was 28 mm. Despite the large size, most of the lesions displayed well-circumscribed nodules without any aggressive infiltrative pattern. The anatomic distribution of these polypoid BCC was distinctive: 5 (21%) on the scalp; 6 (25%) in the genital/perianal/buttock region; 3 (13%) on the trunk; 4 (17%) on the face; 2 (8%) in the periotic region; and 3 (13%) on the extremities. Typically, BCCs are commonly found on sun-exposed areas; however, polypoid BCC preferentially occurs on the scalp, genital areas, and back or buttock area. Polypoid BCC on the nose tip, as in our case, has never been reported. Adachi et al. [19] reviewed nine cases of Japanese polypoid BCC from their institution and noted that the polypoid BCC tumor was larger than other nodular BCCs, and the tumor site varied, including sites at the upper extremities, lower extremities, and genital area. The manifestation is characteristic, and it is sometimes difficult to suspect BCC clinically. Seven cases of the reports stated that the initial clinical diagnosis was adnexal tumor or neurofibroma rather than BCC (Table 1). Our case clinically resembled adnexal tumor, but the findings of dermoscopy were consistent with BCC. Dermoscopy can be a valuable technique for distinguishing polypoid BCC from other pedunculated tumors. Some cases have demonstrated additional characteristics of polypoid BCC. Sahin et al. [4] described a case of keratotic BCC with polypoid manifestation. Wang et al. [5] reported multiple polypoid BCCs in a patient with basal cell nevus syndrome.

### 3. Discussion

Megahed [2] proposed polypoid BCC as a new clinicopathological variant of nodular BCC in 1999 based on a few case reports. The author characterized BCC as follows: polypoid appearance, female predominance, and tumor restriction within the polypoid area. Our search identified 22 previously reported cases of polypoid BCC described in the English literature (Table 1) [2–18]. In our search, Gaughan [3] reported a giant pedunculated BCC on the forearm which arose from burn scar. Following that report, four more cases had been reported before Megahed’s publication [2]; however, the characteristics of polypoid BCC were not fully described (Table 1). Among the 22 patients, there were 9 men and 13 women. The mean age was 58 years old (20–88, median 57 years old) which was younger than seen with ordinary BCC. The average size of the polyps was 28 mm. Despite the large size, most of the lesions displayed well-circumscribed nodules without any aggressive infiltrative pattern. The anatomic distribution of these polypoid BCC was distinctive: 5 (21%) on the scalp; 6 (25%) in the genital/perianal/buttock region; 3 (13%) on the trunk; 4 (17%) on the face; 2 (8%) in the periotic region; and 3 (13%) on the extremities. Typically, BCCs are commonly found on sun-exposed areas; however, polypoid BCC preferentially occurs on the scalp, genital areas, and back or buttock area. Polypoid BCC on the nose tip, as in our case, has never been reported. Adachi et al. [19] reviewed nine cases of Japanese polypoid BCC from their institution and noted that the polypoid BCC tumor was larger than other nodular BCCs, and the tumor site varied, including sites at the upper extremities, lower extremities, and genital area.

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Histopathologically, 15 cases of polypoid BCC have shown the nodular type. Some cases also showed an adenoid/cystic structure histopathologically. The tumor nest was restricted to the polyp, which is important information for surgical excision. However, Kim et al. [13] described a case of polypoid BCC in the lower back, which progressed to pulmonary metastasis and death. Notably, in that case, the tumor was restricted to the polyp; however, it was the largest among the reported polypoid BCCs (Table 1).

The mechanism underlying the formation of polypoid BCC is unclear. Clothing-associated stimuli may be a cause, or there may be anatomical reasons, such as a rare fat condition. As Morita et al. [6] speculated, there are two patterns: pre-existing lesions, such as fibroma and sebaceous nevus, and de novo lesions.

In our case, the positivity of the Ber-EP4 immunocytochemistry was stronger in shallow lesions than in deep lesions, suggesting that BCC is composed of two distinct tumor components. In our case, therefore, it was assumed that the shallow lesions developed first and that the rapid growth of the deeper mucinous lesions pushed the shallow lesions upwards. In addition, since the nose tip is located just above the bone, the rapid increase of the mucinous lesion may have resulted in this characteristic polypoid shape.

More cases of polypoid BCC need to be collected to clarify the characteristics.

### Consent

The patient provided written informed consent to publication of the case details and photographs.

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**Table 1: Continued.**

| No | Year | Author | Age | Sex | Location | Size (mm) | Initial diagnosis | DS | Histopathology | TR | Others |
|----|------|--------|-----|-----|----------|-----------|-----------------|----|---------------|----|--------|
| 18 | 2008 | Feito-Rodriguez11 | 7   | M   | Face, neck | 2 (mean) | BCC | done | Nodular | Yes | Multiple lesions, BCNS |
| 19 | 2008 | Ouchi12 | 54  | M   | Scrotum | 17 | ND | ND | Nodular/cystic | Yes | |
| 20 | 2008 | Yadav13 | 57  | F   | Cheek | 30 × 20 | BCC, pyogenic granuloma, | ND | Nodular/Adenoid | ND | |
| 21 | 2010 | Kim14 | 61  | M   | Lower back | 86 × 52 × 10 | ND | Nodular/Death | Yes | Metastasis | |
| 22 | 2017 | Yildiz15 | 60  | F   | Postauricular region | 7 × 5 | BCC | done | Nodular | Yes | |
| 23 | 2021 | Present report | 104 | M | Nose tip | 40 × 25 × 15 | BCC, adnexal tumor | done | Nodular/Adenoid | Yes | |

BCC, basal cell carcinoma; PBCC, polypoid BCC; DS, dermoscopy; TR, tumor restriction within the polypoid area; ND, not described; BCNS, basal cell nevus syndrome.
**Conflicts of Interest**

The authors declare that there are no conflicts of interest.

**Acknowledgments**

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**References**

[1] K. Peris, M. C. Fargnoli, C. Garbe et al., "Diagnosis and treatment of basal cell carcinoma: European consensus-based interdisciplinary guidelines," *European Journal of Cancer*, vol. 118, pp. 10–34, 2019.

[2] M. Megahed, "Polypoid basal cell carcinoma: a new clinico-pathological variant," *British Journal of Dermatology*, vol. 140, no. 4, pp. 701–703, 1999.

[3] L. J. Gaughan, J. R. Bergeron, and J. F. Mullins, "Giant basal cell epithelioma developing in acute burn site," *Archives of Dermatology*, vol. 99, no. 5, pp. 594-595, 1969.

[4] M. T. Sahin, M. A. Demir, Y. Kaya, M. Can, I. Inanir, and S. Ozturkcan, "Inguinal keratotic Basal cell carcinoma mimicking giant solitary trichoepithelioma," *The Journal of Dermatology*, vol. 30, no. 5, pp. 395–399, 2003.

[5] S. Q. Wang and L. H. Goldberg, "Multiple polypoid basal cell carcinomas on the perineum of a patient with basal cell nevus syndrome," *Journal of the American Academy of Dermatology*, vol. 57, no. 2, pp. S36–S37, 2007.

[6] K. Morita, A. Ikoma, and K. Takagaki, "Pedunculated basal cell epithelioma which is not Pinkus tumor," *The Journal of Dermatology*, vol. 28, no. 2, pp. 103–105, 2001.

[7] N. Misago, Y. Suzuki, Y. Miura, and Y. Narisawa, "Giant polypoid basal cell carcinoma with features of fibroepithelioma of Pinkus and extensive cornification," *European Journal of Dermatology*, vol. 14, no. 4, pp. 272–275, 2004.

[8] N. Sakai, K. Kurihara, and S. Kawana, "Polypoid basal cell carcinoma on the face," *Journal of Dermatology*, vol. 34, no. 8, pp. 588-589, 2007.

[9] J. E. Choi, N. Y. Ko, S. H. Seo, S. N. Kim, Y. C. Kye, and H. H. Ahn, "Polypoid basal cell carcinoma as a new variant of basal cell carcinoma: three Korean cases," *Acta Derm Venereol*, vol. 87, pp. 282-283, 2007.

[10] M. Feito-Rodriguez, E. Sendagorta-Cudos, M. Moratinos-Martinez, M. J. Gonzalez-Beato, R. de Lucas-Laguna, and A. Pizarro, "Dermatoscopic characteristics of acrochordon-like basal cell carcinomas in Gorlin-Goltz syndrome," *Journal of the American Academy of Dermatology*, vol. 60, no. 5, pp. 857–861, 2009.

[11] T. Ouchi and M. Sugiuira, "Polypoid basal cell carcinoma on the scrotum," *The Journal of Dermatology*, vol. 35, no. 12, pp. 804-805, 2008.

[12] S. Yadav, G. P. Thami, A. Bhatnagar, S. Gill, and A. BhAtmAgAr, "Polypoid Basal cell carcinoma masquerading as pyogenic granuloma," *Indian Journal of Dermatology*, vol. 55, no. 3, p. 296, 2010.

[13] J. R. Kim, N. H. Lee, Y. S. Kim, J. H. Park, and S. K. Yun, "Pulmonary metastasis from a giant polypoid basal cell carcinoma in the lumbosacral area," *Dermatologic Surgery*, vol. 36, no. 1, pp. 128–132, 2010.

[14] S. Yildiz, I. Karaarslan, B. Yaman, and F. Ozbekir, "Dermoscopy and reflectance confocal microscopy in pedunculated basal cell carcinoma," *Dermatology Practical & Conceptual*, vol. 7, pp. 51-52, 2017.

[15] C. L. Love and D. P. Sarma, "Giant polypoid basal cell carcinoma," *Journal of Surgical Oncology*, vol. 28, no. 3, pp. 230-231, 1985.

[16] J. McElroy, T. E. Knight, and L. Chang-Stroman, "Giant polypoid basal cell carcinoma," *Cutis*, vol. 58, no. 4, pp. 289–292, 1996.

[17] S. S. Morimoto and A. W. Gurevitch, "Residents’ corner: pedunculated pigmented basal-cell carcinoma on the buttock of a black man," *The Journal of Dermatologic Surgery and Oncology*, vol. 11, no. 2, pp. 115–117, 1985.

[18] P. Foley and G. Mason, "Keratotic basal cell carcinoma of the upper eyelid," *Australasian Journal of Dermatology*, vol. 36, no. 2, pp. 95-96, 1995.

[19] K. Adachi, Y. Yoshida, H. Goto, H. Noma, and O. Yamamoto, "Clinicopathological features of polypoid basal cell carcinoma: the first study in Japan," *European Journal of Dermatology*, vol. 30, no. 4, pp. 433–435, 2020.