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Case Report

Seborrheic inclusion cyst of the skin positive for cytoplasmic inclusion bodies and HPV antigen

Tadashi Terada

Department of Pathology, Shizuoka City Shimizu Hospital, Shizuoka, Japan

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Abstract: Seborrheic inclusion cyst (SIC) is a very rare variant of epidermal cyst of the skin. SIC shows seborrheic keratosis (SK)-like lesion in epidermal cyst. SIC is extremely rare; only 6 case reports have been published in the English literature. However, no immunohistochemical study of SIC has been reported. A 41-year-old Japanese man noticed a subcutaneous tumor in the neck. Physical examination showed slightly mobile tumor in the subcutaneous tissue, and total excision was performed. Grossly, the tumor (1 x 1 x 0.8 cm) was cyst containing atheromatous keratin. Microscopically, the lesion is a cyst containing keratins. About one half of the cyst showed features of epidermal cyst consisting of mature squamous epithelium with granular layers. The other one half showed SK-like epidermal proliferation. The SK-like area showed basaloid cell proliferation with pseudohorn cysts. No significant atypia was noted. Many eosinophilic cytoplasmic inclusion bodies were noted in the SK-like area. Immunohistochemically, the SK-like area was positive for pancytokeratin AE1/3, pancytokeratin CAM5.2, p63, and Ki-67 (labeling=8%) and HPV, but negative for p53. The pathological diagnosis was SIC.

Keywords: Seborrheic inclusion cyst, epidermal cyst, cutaneous pathology, immunohistochemistry, HPV

Introduction

Seborrheic inclusion cyst (SIC) is a very rare variant of epidermal cyst of the skin. SIC shows seborrheic keratosis (SK)-like lesion in epidermal cyst. SIC is extremely rare; only 6 case reports have been published in the English literature [1-6]. However, no immunohistochemical study of SIC has been reported. Herein reported is a rare case of SIC with an immunohistochemical study including human papilloma virus (HPV).

Case report

A 41-year-old Japanese man noticed a subcutaneous tumor in the neck, and consulted our hospital. Physical examination showed slightly mobile tumor in the subcutaneous tissue, and total excision was performed. Grossly, the tumor (1 x 1 x 0.8 cm) was cyst containing atheromatous keratin. Microscopically, the lesion is a cyst containing keratins (**Figure 1**). About one half of the cyst showed features of epidermal cyst consisting of mature squamous epithelium with granular layers (**Figure 2**). The other one half showed SK-like epidermal proliferation (**Figure 3**). The SK-like area showed basaloid cell proliferation with pseudohorn cysts. No significant

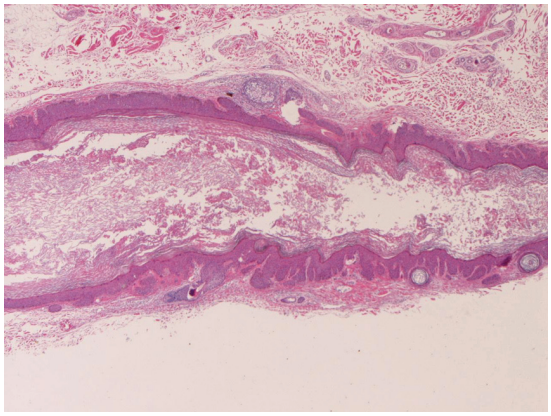

Figure 1. Very low power view of the cyst. The cyst contains keratins. About one half of the cyst (left) shows features of epidermal cyst, while other one half (right) shows features of seborrheic keratosis. HE, x20.

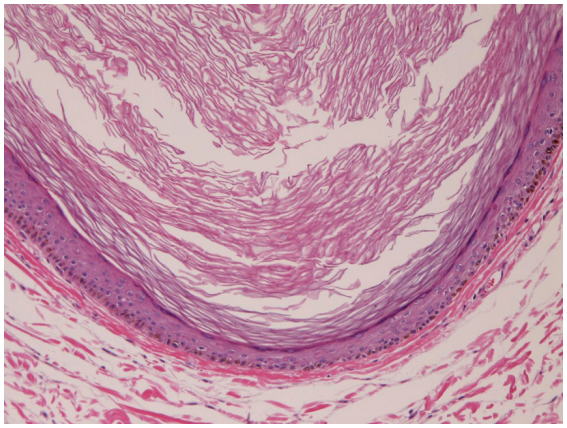

Figure 2. Higher power view of the area of epidermal cyst. The features are typical for epidermal cyst. A granular layer is seen. HE, x 200.

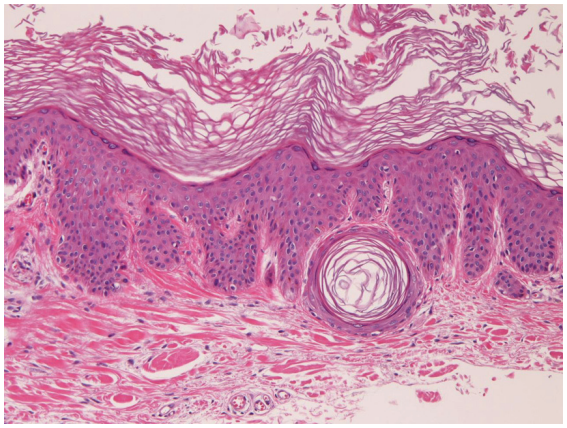

Figure 3. Higher power view of the area of seborrheic keratosis. The features are typical for seborrheic keratosis. Basaloid cell proliferation and pseudohorn cyst are seen. No significant atypia is seen. HE, x 200.

atypia was noted. Many eosinophilic cytoplasmic inclusion bodies were noted in the SK-like area (**Figure 4**). An immunohistochemical study was performed with the use of Dako's EnVision method, as previously described [7, 8]. The SK-like area was positive for pancytokeratin AE1/3, pancytokeratin CAM5.2, p63, and Ki-67 (labeling=8%) and HPV (**Figure 5**), but negative for p53. The pathological diagnosis was SIC.

Discussion

Epidermal cyst may be the soil for various epidermal tumors including squamous cell carci-

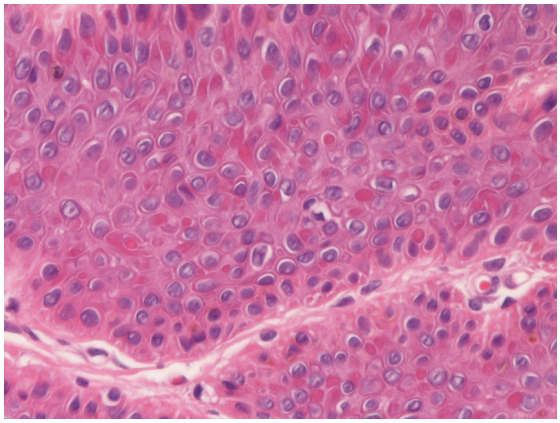

Figure 4. Very high power view of the area of seborrheic keratosis. Numerous eosinophilic cytoplasmic inclusions are seen. HE, x400.

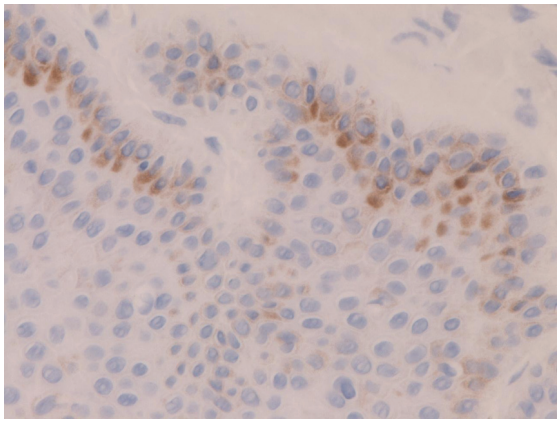

Figure 5. Immunostaining of HPV. HPV was positive. Immunostaining, x400.

noma. SIC is also such an example. SIC is very rare; only 6 case reports have been reported. In the present SIC, about one half of the tumor showed features of epidermal cyst, and other one half SK, suggesting that SK may occur within the epidermal cyst. Immunohistochemical study of SIC has not been performed. The present report investigated some immuno profiles of SIC. The proliferative fraction of the present SIC was low (Ki-67 labeling=8%) and p53 was negative. Squamous cell antigens such as cytokeratins and p63 were positive. CEA was negative. Femandez-Flores reported that HPV was not detected by polymerase chain reaction in SIC [5]. In the present case, many eosinophilic inclusions were seen in the cytoplasm and

HPV was immunohistochemically positive. Therefore, it is probable that HPV infected in the epidermal cyst and caused the SK-like lesion in the epidermal cyst.

In conclusion, a very rare case of SIC of the neck positive for cytoplasmic inclusions and HPV antigen was reported with an immunohistochemical investigation.

Address correspondence to: Dr. Tadashi Terada, Department of Pathology, Shizuoka City Shimizu Hospital, Miyakami 1231 Shimizu-Ku, Shizuoka 424-8636, Japan Tel: 81-54-336-1111; Fax: +81-54-334-1173; E-mail: piyo0111jp@yahoo.co.jp

References

[1] Kwittken J. Seborrheic keratosis with epidermal cyst. Mt Sinai J Med 1980; 47: 258-260.
[2] Rahbari H. Epidermoid cyst with seborrheic verruca-like cyst wall. Arch Dermatol 1982; 118: 326-328.
[3] Chun SI, Im S. An epidermoid cyst with a seborrheic verruca-like cyst wall. J Dermatol 1990; 17: 260-263.
[4] Brown EJ, Youngberg GA. Seborrheic inclusion cyst. J Tenn Med Assoc 1991; 84: 587-588.
[5] Femandez-Flores A. Seborrheic inclusion cysts: a study of human papillomavirus infection by polymerase chain reaction. Am J Dermatopathol 2009; 31: 310-312.
[6] Pusiol T, Zorzi MG, Morichetti D. Extracutaneous seborrheic inclusion cyst: an unusual presentation. Pathologica 2010; 102: 420-422.
[7] Terada T, Kawaguchi M, Furukawa K, Sekido Y, Osamura Y. Minute mixed ductal-endocrine carcinoma of the pancreas with predominant intraductal growth. Pathol Int 2002; 52: 740-746.
[8] Terada T, Kawaguchi M. Primary clear cell adenocarcinoma of the peritoneum. Tohoku J Exp Med 2005: 206: 271-275.