

Unusual skin tumour with a large cystic component

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CLINICAL QUESTION

An 80-year-old woman presented to our hospital with a tumour on the left lower leg. The lesion had slowly grown over the last year. She had no personal or family history of skin cancer. The lesion of concern was cystic and consisted of double 10 mm nodules in diameter. The clinical appearance of the lesion raised suspicion of malignancy and surgical resection was performed. The surgically-resected specimen was 22×15×14 mm in size, and the nodule had a yellowish serous fluid.

DIFFERENTIAL DIAGNOSES

- Nodular hidradenoma
- Atypical hidradenoma
- Hidradenocarcinoma
- Poroma
- Trichilemmoma

DISCUSSION

Hidradenocarcinoma is an uncommon malignant tumour in a sweat gland. Generally, sweat gland carcinomas are rare with a reported incidence of approximately 0.05%. Hidradenocarcinomas account for about 6% of malignant eccrine tumours.¹ Hidradenocarcinoma presents as a solitary nodule on various regions and has no characteristic symptoms.

Histological examinations showed the lesion was well circumscribed, with a loss of circumscription and did not adhere to the epidermis. The mass had several dilated cysts with a solid nodule between the cysts (figure 1C). In the nodular component, they formed a cellular mass with a hyaline surround. The tumour cells were composed of a mixture of eosinophilic polygonal cells and squamous cells. These tumour cells had slightly infiltrated the surrounding tissue.

Several studies have reported that some immunohistochemical analysis may be able to distinguish hidradenocarcinoma from its benign counterpart, hidradenoma.²⁻⁴ A previous study suggested that a tumour with Ki-67 >11% would likely be malignant.³ In the present case, immunostaining was diffusely positive for p53 and Ki67 was also higher than 11% at 12.4%. These results were supportive for malignancy. Another differential diagnosis besides a sweat gland tumour is trichilemmoma. However, while hidradenocarcinoma may have a cystic lesion, trichilemmoma shows a peripheral palisading of tumour cells. The present case had some cystic lesions and was considered to be a hidradenocarcinoma.

Hidradenocarcinoma is generally an aggressive tumour.^{2,5} In the present case, it is expected that the course of the disease would be less aggressive than

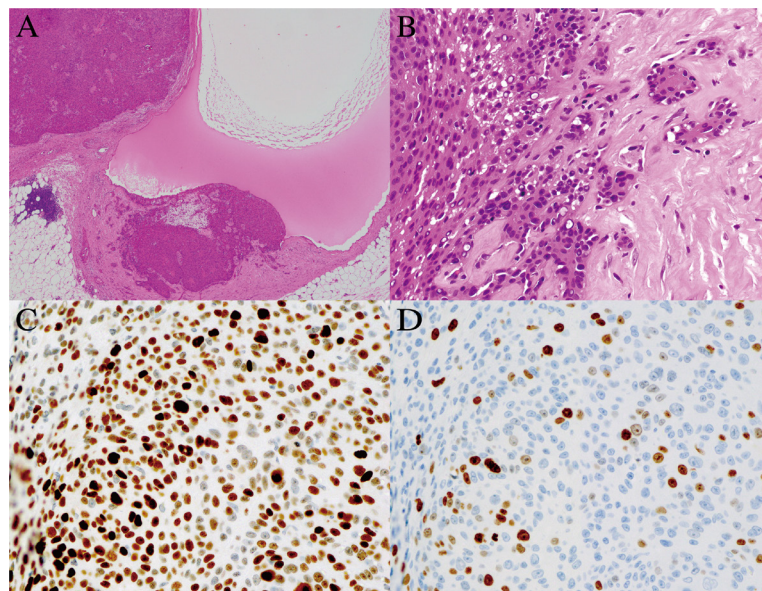


Figure 1 Microscopic examination in resected specimen. (A) The mass had a dilated cyst and solid nodule. (B) In the nodular component, the tumour cells formed a cellular mass with hyaline surround. The tumour cells, composed of a mixture of eosinophilic polygonal cells or squamous cells, were in small clusters and infiltrated the surrounding connective tissue. (C) Immunohistochemistry of p53 was positive for approximately 80% of the tumour cells. (D) The MIB-1 (Ki-67) labelling index was 12.4%.



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that of a typical hidradenocarcinoma because of its microscopic invasion.

CORRECT ANSWER

C. Hidradenocarcinoma

Take home messages

- ▶ Hidradenocarcinoma is a rare malignant tumour in a sweat gland.
- ▶ Hidradenocarcinoma contains a mixture of eosinophilic polygonal cells and squamous cells.
- ▶ The diagnosis of hidradenocarcinoma is morphological and can be confirmed by p53 and Ki-67 immunohistochemistry.

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