

Unusual Cutaneous Metastasis of Pancreatic Adenocarcinoma

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CASE REPORT

Our patient was a 65-year-old woman with a past medical history significant for resectable pancreatic adenocarcinoma with no vascular involvement, stage IIA T₃N₀M₀. She underwent potentially curative Whipple resection with negative margins and no lymph node involvement, followed by chemotherapy of 10 cycles of gemcitabine and 6 weeks of fluorouracil, with concurrent radiation therapy to the pancreatic bed.

One year after the resection, the patient presented to the dermatology clinic with a concerning lesion on her left forehead. The lesion had been present for 2 months, and it was steadily enlarging with purulent discharge. She had no evidence of metastatic or recurrent pancreatic disease based on her most recent imaging study, which occurred 2 months before symptom onset. Upon physical examination, there was a pearly papule with central ulceration and debris on the left forehead (Figure 1). Microscopic examination of a shave biopsy of the lesion showed a centrally ulcerated epidermis over a dermis containing variably sized neoplastic, infiltrative glands. A battery of immunohistochemical stains were performed to classify this neoplasm, including pankeratin, cytokeratin 7, cytokeratin 20, mammaglobin, and GATA3. The atypical glands stained positively for pankeratin and cytokeratin 7 (Figure 2), whereas GATA3 showed minimal focal staining. Cytokeratin 20 and mammaglobin stains were negative. The morphology of the neoplasm was compared to the patient's previously resected pancre-



Figure 1. Pancreatic metastasis on the patient's forehead.

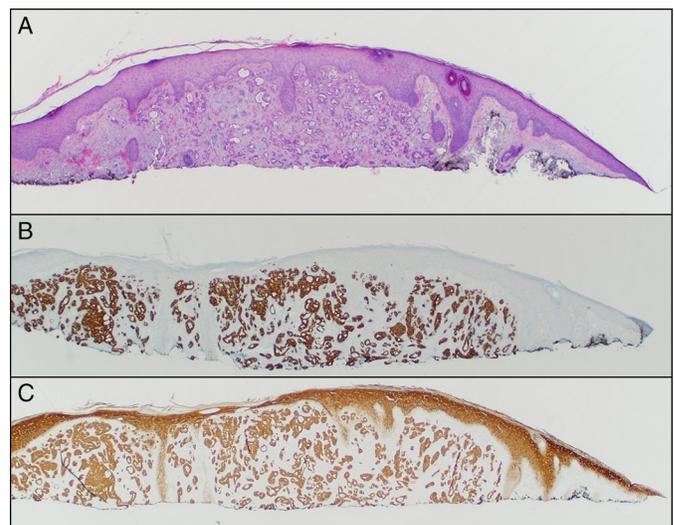


Figure 2. Skin shave pathology with (A) hematoxylin and eosin, (B) positive CK-7, and (C) pankeratin immunohistochemical stains highlighting the malignant glands (20x).

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atic tumor from 1 year prior, and it was found to be morphologically identical. The morphology and immunohistochemical staining pattern were consistent with a metastatic pancreatic ductal adenocarcinoma.

Cutaneous metastases from pancreatic cancer are rare.¹ The most common site reported is the umbilicus, which is known as the "Sister Mary Joseph's nodule."² Nonumbilical cutaneous metastases are far less common, with only a few cases reported in the literature.³ These metastases often have a nonspecific clinical appearance and can be confused for more common cutaneous lesions.⁴ This case is unique because there were no signs of metastatic disease elsewhere, with the only sign of recurrence being the forehead metastasis. Clinicians should be aware of a such scenario, while keeping in mind that immunohistochemical staining can be useful to help identify the origin of the underlying tumor, providing guidance for further management.

DISCLOSURES

Author contributions: K. Aloreidi and J. Berg wrote the manuscript and approved the final version. B. Patel and M. Atiq

revised the manuscript for intellectual content. M. Atiq is the article guarantor.

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REFERENCES

1. Lookingbill DP, Spangler N, Helm KF. Cutaneous metastases in patients with metastatic carcinoma: A retrospective study of 4020 patients. *J Am Acad Dermatol.* 1993;29(2 Pt 1):228-36.
2. Powell FC, Cooper AJ, Massa MC, Goellner JR, Su WP. Sister Mary Joseph's nodule: A clinical and histologic study. *J Am Acad Dermatol.* 1984;10(4):610-5.
3. Hafez H. Cutaneous pancreatic metastasis: A case report and review of literature. *Indian J Cancer.* 2007;44(3):111-4.
4. Kaoutzanis C, Chang MC, Abdul Khalek FJ, Kreske E. Non-umbilical cutaneous metastasis of a pancreatic adenocarcinoma. *BMJ Case Rep.* 2013;2013:bcr2012007931.