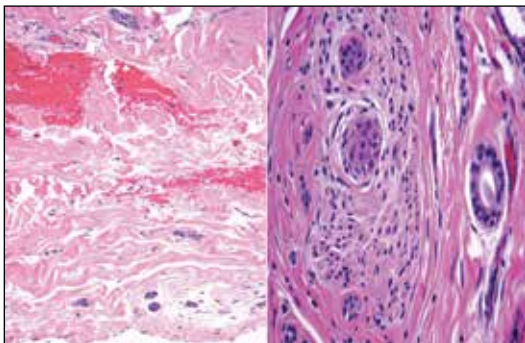


H&E, original magnifications $\times 40$ (left) and $\times 400$ (right).



H&E, original magnifications $\times 100$ (left) and $\times 100$ (right).

The best diagnosis is:

- a. cutaneous adenoid cystic carcinoma
- b. metastatic adenocarcinoma
- c. sclerosing basal cell carcinoma
- d. syringoid eccrine carcinoma
- e. syringoma

PLEASE TURN TO PAGE 191 FOR DERMATOPATHOLOGY DIAGNOSIS DISCUSSION

Syed Morteza Abedi, MD; Ryan Yu, MD; Samih Salama, MD; Salem Alowami, MD

From the Department of Pathology and Molecular Medicine, McMaster University, Hamilton, Ontario, Canada. Drs. Salama and Alowami also are from St. Joseph's Healthcare Hamilton, Ontario.

The authors report no conflict of interest

Correspondence: Syed Morteza Abedi, MD, Department of Pathology and Molecular Medicine, McMaster University, HSC-2N22B, 1280 Main St W, Hamilton, ON L8S 4K1, Canada (syed.abedi@medportal.ca).

Syringoid Eccrine Carcinoma

Syringoid eccrine carcinoma is a rare malignant adnexal tumor with eccrine differentiation that histologically resembles a syringoma.¹ Originally described as eccrine epithelioma by Freeman and Winklemann² in 1969, syringoid eccrine carcinoma has been reported in the literature as eccrine carcinoma, eccrine syringomatous carcinoma, and sclerosing sweat duct carcinoma.³ Clinically, syringoid eccrine carcinoma most commonly presents as a tender plaque or nodule on the scalp, and histologic examination generally reveals a dermal-based lesion that rarely shows epidermal connection. It demonstrates syringomalike tadpole morphology (epithelial strands with lumen formation) composed of basaloid epithelium with uniform hyperchromatic nuclei (Figure 1). There usually is an infiltrative growth pattern to the subcutis (Figure 2 [left]) or skeletal muscle as well as remarkable perineural invasion (Figure 2 [right]). Mitotic activity is minimal to absent. The tumor cells of syringoid eccrine carcinoma typically show positive immunostaining for high- and low-molecular-weight cytokeratin, while the lumina are highlighted by epithelial membrane antigen and carcinoembryonic antigen.⁴ However, immunohistochemistry often is not contributory in diagnosing primary eccrine carcinomas.

The differential diagnosis of syringoid eccrine carcinoma includes cutaneous adenoid cystic

carcinoma, metastatic adenocarcinoma, sclerosing basal cell carcinoma, and syringoma. Cutaneous adenoid cystic carcinoma is a rare, slow-growing, flesh-colored tumor that consists of lobules, islands, and cords of basaloid cells with prominent cystic cribriforming (Figure 3). The tumor cells typically are small, cuboidal, and monomorphic. Metastatic adenoid cystic carcinoma, such as from a primary tumor of the salivary glands or breasts, must be excluded before rendering a diagnosis of primary cutaneous disease.

Metastatic adenocarcinoma of the skin usually presents in patients with a clinical history of pre-existing disease. The breasts, colon, stomach, and ovaries are common origins of metastases. The histopathologic and immunohistochemical findings depend on the particular site of origin of the metastasis. Compared with primary eccrine carcinomas, metastatic adenocarcinomas of the skin generally are high-grade lesions with prominent atypia, mitosis, and necrosis (Figure 4).

Sclerosing basal cell carcinoma shows basaloid tumor cells with deep infiltration. Unlike syringoid eccrine carcinoma, basal cell carcinoma is an epidermal tumor that does not have true lumen formation. Furthermore, other variants of basal cell carcinoma, including nodular, micronodular, or superficial multicentric tumors, often coexist with the sclerosing variant in the same lesion and constitute a useful diagnostic clue (Figure 5). Staining for epithelial membrane

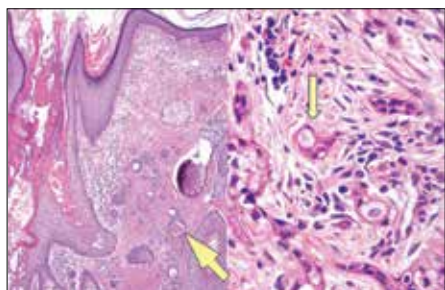


Figure 1. Dermal infiltrate with tadpole morphology (arrow) characteristic of syringoid eccrine carcinoma (left)(H&E, original magnification $\times 40$). High-power view shows an epithelial infiltrate and tadpole morphology (arrow)(right)(H&E, original magnification $\times 400$).

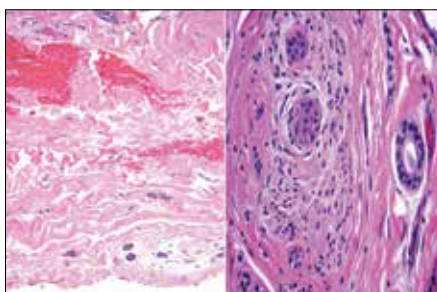


Figure 2. Syringoid eccrine carcinoma extending to the junction of the reticular dermis and subcutaneous fat (left) (H&E, original magnification $\times 100$). Nerve with adjacent and invasive basaloid nests of syringoid carcinoma (right) (H&E, original magnification $\times 100$). The tumor consists of monomorphic cells with oval hyperchromatic nuclei.



Figure 3. Striking cribriform architecture of cutaneous adenoid cystic carcinoma (H&E, original magnification $\times 40$). The tumor is well circumscribed and consists of multiple cystic spaces lined by flattened to cuboidal basaloid epithelium.

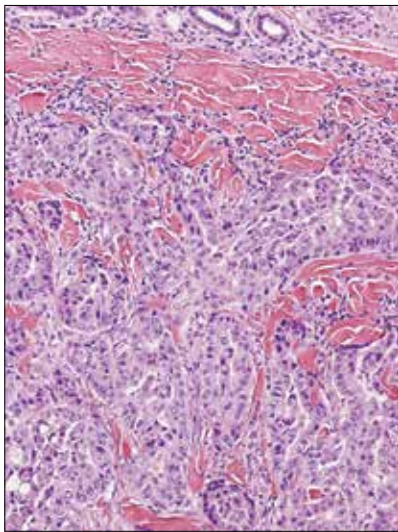


Figure 4. Metastatic adenocarcinoma of the skin with dermal infiltrating glands (H&E, original magnification $\times 100$). The nuclei are highly atypical. The tumor cells are cytokeratin 7 positive, cytokeratin 20 negative, estrogen-receptor positive, and gross cystic disease fluid protein positive, which is consistent with metastasis from a primary carcinoma of the breast (not shown).

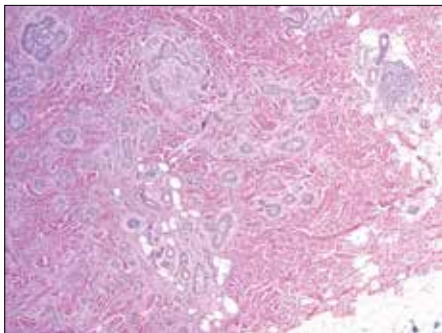


Figure 5. Deeply invasive tumor with multiple architectures (sclerosing and micronodular) in a case of sclerosing basal cell carcinoma (H&E, original magnification $\times 40$). Basaloid nests without true lumen formation invade subcutaneous adipose tissue.

antigen may be useful in identifying the absence of lumen formation, and Ber-EP4 highlights the epidermal origin of the lesion.⁵

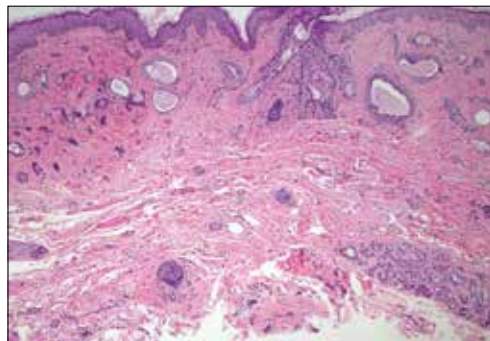


Figure 6. Syringoma is composed of dilated ducts in a fibrotic stroma (H&E, original magnification $\times 40$). Careful microscopic examination would reveal no perineural or deep subcutaneous tumor involvement.

Syringomas most commonly present as multiple small flesh-colored papules on the eyelids. On histology, syringomas present as small superficial dermal lesions composed of small ducts that may form tadpolelike structures in a fibrotic stroma (Figure 6). The ducts are lined by benign cuboidal cells. In contrast to syringoid eccrine carcinomas, syringomas usually present as multiple lesions that are microscopically superficial without perineural involvement.

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Erratum

Due to a submission error, the article “Reduced Degree of Irritation During a Second Cycle of Ingenol Mebutate Gel 0.015% for the Treatment of Actinic Keratosis” (*Cutis.* 2015;95:47-51) contained the incorrect scale for local skin reactions (LSRs). The text in the Methods should have stated:

Using standardized photographic guides, 6 individual LSRs—erythema, flaking/scaling, crusting, swelling, vesiculation/pustulation, and erosion/ulceration—were assessed on a scale of 0 (none) to 4 (severe), with higher numbers indicating more severe reactions.

The staff of *Cutis*[®] makes every possible effort to ensure accuracy in its articles and apologizes for the mistake.