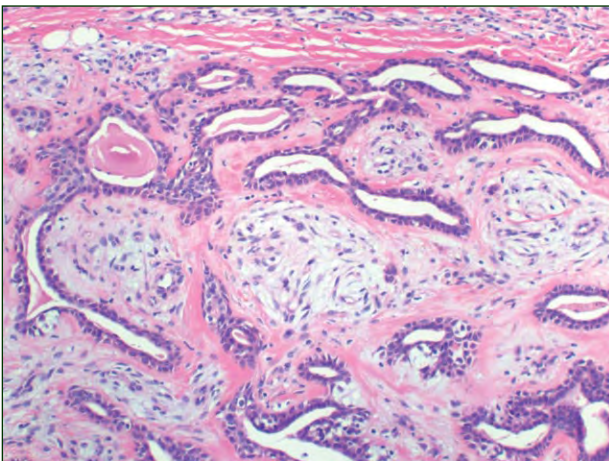


H&E, original magnification $\times 4$.



H&E, original magnification $\times 10$.

A biopsy of a slow-growing tumor on the posterior aspect of the neck was taken. The best diagnosis is:

- a. chondroid syringoma
- b. cylindroma
- c. hidradenoma
- d. poroma
- e. spiradenoma

PLEASE TURN TO PAGE 77 FOR DERMATOPATHOLOGY DIAGNOSIS DISCUSSION

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The authors report no conflict of interest.

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Chondroid Syringoma

Chondroid syringoma, also known as mixed tumor of skin, is a benign neoplasm of the sweat glands. A rare malignant variant also has been described.¹ Billroth² first described a tumor in the salivary gland with similar morphologic features in 1859; later, the term *mixed tumor of skin* was introduced.³ Hirsch and Helwig⁴ coined the term *chondroid syringoma* in 1961. Chondroid syringomas most commonly occur in the head and neck region in middle-aged adults and present as dermal or subcutaneous nodules, ranging in size from 0.5 to 3 cm. Histologic criteria for diagnosis include the presence of epithelial and nonepithelial (eg, mesenchymal) components (Figure 1).⁵ The epithelial component includes clusters, cords of cells forming ductal structures, and tubules. Solid islands of squamous

epithelium, keratinous cysts, calcification, focal ossification, and adipose metaplasia also may be present. The nonepithelial component consists of fibrous, myxoid, and/or chondroid tissue.⁶

Cylindromas also most commonly occur in the head and neck region of middle-aged women. Large tumors or multiple tumor nodules, the so-called turban tumor, can form.⁷ The classic histology of cylindromas consist of islands or cords of basaloid cells surrounded by a pink, hyaline, basement membrane material that stains positively with periodic acid–Schiff and is diastase resistant (Figure 2). Tumor islands are composed of 2 cell types: (1) peripheral cells with dark nuclei and a tendency to palisade, and (2) larger, centrally located, paler cells with vesicular nuclei.

Spiradenomas usually present as gray-pink nodules in the head and neck region or trunk. They are composed of large basophilic nodules in the dermis without connection to the epidermis.⁸ Similar to cylindromas, 2 cell types are present: (1) small basaloid cells at the periphery, and (2) larger cells with paler nuclei located around small lumina with eosinophilic material that stains positively with periodic acid–Schiff and is diastase resistant (Figure 3). Scattered lymphocytes can be identified among the neoplastic cells.

The differential diagnosis of a nodule on the face also includes hidradenoma, which can present in any anatomical location and measure up to 2 cm.⁹ Hidradenomas typically exhibit a solid and cystic

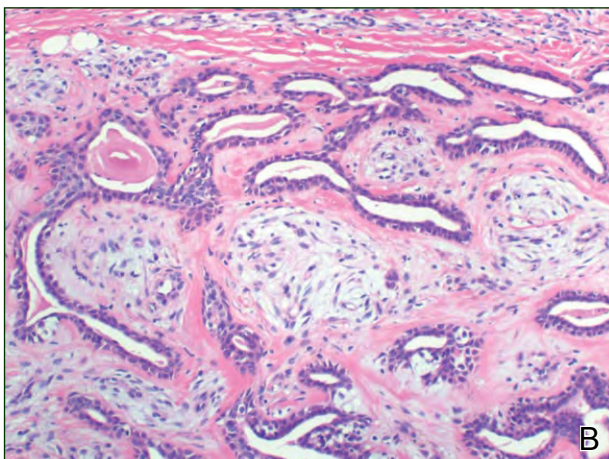
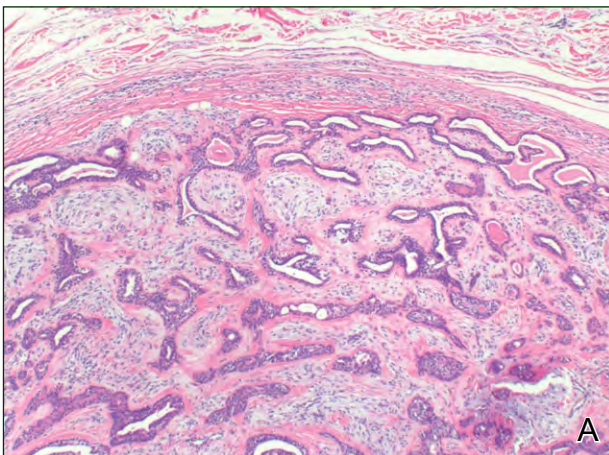


Figure 1. Chondroid syringoma with epithelial and non-epithelial components (A and B)(H&E; original magnifications $\times 4$ and $\times 10$, respectively).

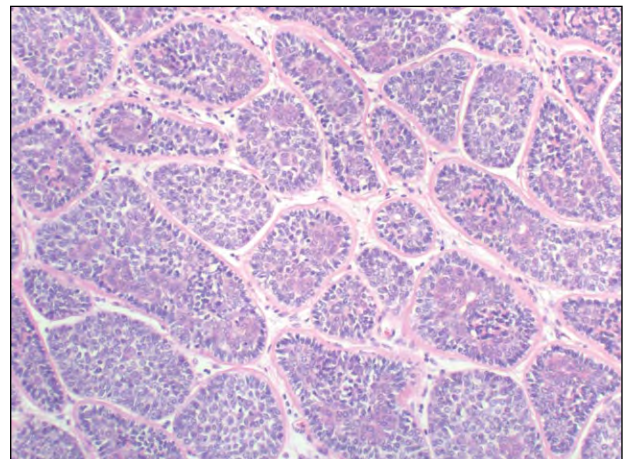


Figure 2. Cylindroma with islands of neoplastic cells surrounded by hyaline material (H&E, original magnification $\times 10$).

growth pattern. Histologically, the cells comprising the tumor may have an eosinophilic or clear cytoplasm in varying proportions. Ducts may be seen throughout the tumor, some that dilate and form cysts filled with eosinophilic material (Figure 4).

When hidradenomas become predominantly solid, they may resemble poromas. Even though poromas mostly occur on acral sites, they also are described in other anatomic sites, including the head and neck. Histologically, poromas are composed

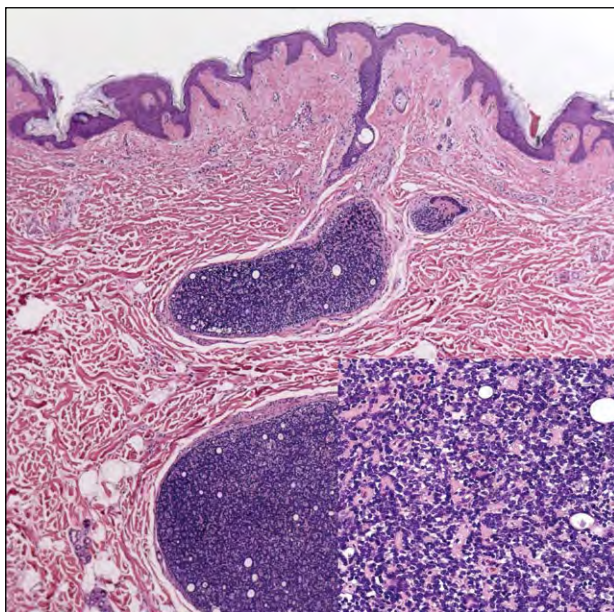


Figure 3. Spiradenoma with small lumina with eosinophilic material that stained positive with periodic acid–Schiff; scattered lymphocytes also were identified (H&E, original magnification $\times 10$ [inset in bottom right corner, original magnification $\times 40$]).

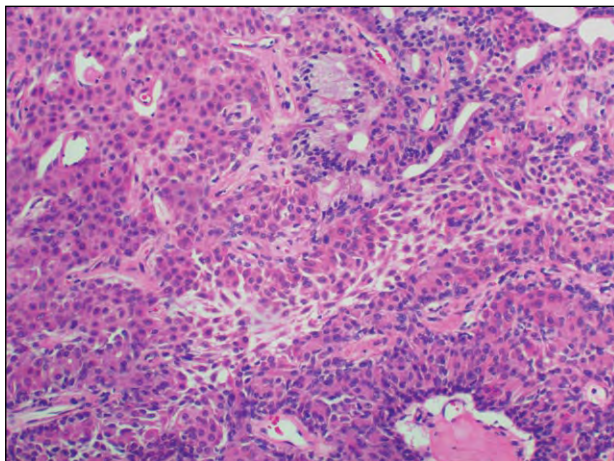


Figure 4. Hidradenoma solid area with predominantly eosinophilic cells (H&E, original magnification $\times 10$).

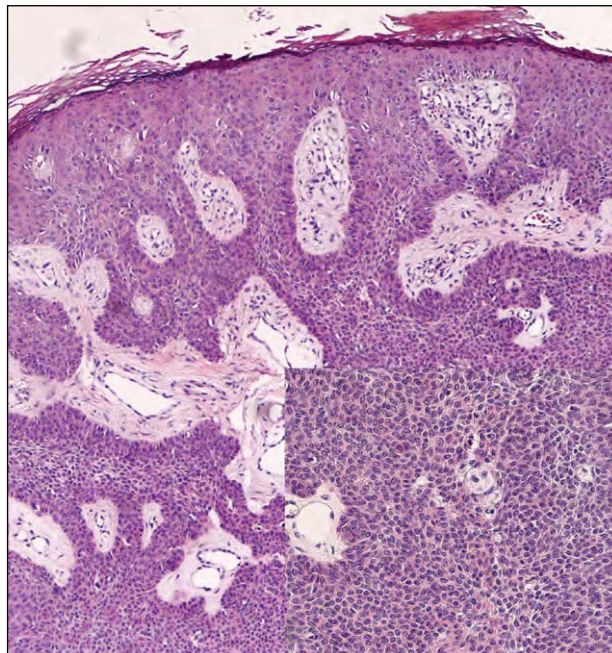


Figure 5. Poroma composed of broad anastomosing bands of poroid cells (H&E, original magnification $\times 10$ [inset in bottom right corner, original magnification $\times 40$]).

of broad anastomosing bands of poroid cells and small ducts, often with connection to the epidermis (Figure 5).

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