Pathology Quiz Case 2

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A 75-YEAR-OLD MAN PRESENTED WITH A 1-month history of a friable mass on the left antihelix that was associated with heavy, prolonged bleeding. Antibiotic therapy was unsuccessful. Physical examination revealed 2 soft, insensate masses measuring 1 cm and 2 cm, respectively, on the left antihelix (Figure 1). The external auditory canal and the tympanic membrane were normal. There was no cervical lymphadenopathy. The patient’s cancer history included renal cell carcinoma, melanoma on the left shoulder, and squamous cell carcinoma of the scalp. His surgical history included a partial nephrectomy, an adrenalectomy, and wide local excisions of the previous skin cancers. His family history was noncontributory. His social history was remarkable for excessive smoking and sun exposure. A review of systems was noncontributory. Computed tomography and whole-body positron emission tomography (PET) demonstrated no other abnormalities.

The mass was removed in its entirety with negative margins in the operating room. Low-power microscopic examination of the lesion on hematoxylin-eosin–stained slides showed sheets of small cells with hyperchromatic nuclei extending throughout the dermis, with no connection to the overlying epidermis (Figure 2). The high-power view showed that the tumor was composed of closely spaced, small, round to oval cells with indistinct cytoplasmic borders and hyperchromatic nuclei. There were numerous mitotic figures, which were characterized by a small, dark center surrounded by a clear space (Figure 3). Immunohistochemical staining was positive for chromogranin, synaptophysin, CD56, neurofilament, and CK20 and negative for S-100 protein. Immunohistochemical evaluation for CK20 showed a paranuclear dotlike staining pattern (Figure 4).

What is your diagnosis?