Odontogenic Ghost Cell Carcinoma of the Maxilla

This is from a 39-year-old male with a 26-six-year history of a maxillary mass, recurring after excision, 10cm in widest diameter, solid and cystic.

Odontogenic ghost cell carcinomas (OGCC) are rare and only a dozen or so have been reported in the literature. This tumor appears to be more common in Asians based on the cases that have been reported and is more common in the maxilla than the mandible. Histologically, elements of a benign calcifying odontogenic cyst (COC) can be identified in all the malignant variants, either separated or admixed with the malignant epithelial component. The biological behavior of the tumor is unpredictable, with some cases characterized by relatively indolent growth and others by a locally aggressive and potentially fatal course. The tumor apparently arises most often from malignant transformation of a preexisting benign COC, although it may also develop from other odontogenic tumors. The section shows cords and islands of stellate reticulum displaying peripheral palisading of ameloblasts. There are numerous polygonal cells that have eosinophilic cytoplasm and indistinct cellular detail (“ghost cells”). Calcified dental matrix is also present. Although cytologic atypia appears mild, the borders are infiltrative.