CHONDROMA–CHONDROSARCOMA

The chondroma is a benign tumor, uncommon in the head and neck, composed of mature hyaline cartilage. It is seen particularly in the paranasal sinuses, nasal cavity, and in the larynx.

Rarely seen in head and neck pathology, the most common site for chondrosarcoma is the larynx and then the maxilla.

Microscopically, the chondrosarcoma shows abnormal cells arising from hyaline cartilage with prominent nucleoli and often two or more nuclei per lacuna. Pleomorphism and hyperchromasia are prominent features. Grading is from low to high with the low grade lesions resembling benign chondroma in which cells show small densely staining nuclei with some bi-nucleated forms and frequent calcification and ossification. High grade lesions show pronounced cellularity and plump bi-nucleated and multi-nucleated cells. Nuclei and nucleoli are often large. There are mitoses and the nucleus-cytoplasm ratio is altered in high grade lesions.

Chondroma, larynx. This tumor was submucosal. The ossification (large arrow) seen here is common. The cells are bland (small arrow) and look like those of normal cartilage without the pleomorphism seen in the chondrosarcoma.
Chondrosarcoma, nasal septum, with hypercellularity enlarged nuclei and sometimes more than one nucleus per lacuna (double arrows). Hyperchromatism and some pleomorphism are present. Peripherally there is osseous metaplasia (single arrow). Graded II of III.

Chondrosarcoma, maxilla, intermediate grade. Other areas were low to moderate grade.
Chondrosarcoma, larynx, high power. Cell nuclei are enlarged and pleomorphic.

Chondroma. Note the abundant matrix and few chondrocytes present in contrast to the prior images of chondrosarcoma that have a much higher degree of cellularity.
Chondrosarcoma, larynx, low grade to moderately differentiated. Note bony metaplasia (arrow).