**SPINDLE CELL CARCINOMA (SQUAMOUS CARCINOMA)**

Spindle cell carcinoma is thought of as a malignant epithelial tumor with spindle cell morphology in association with squamous cell carcinoma which may be either invasive or insitu. Most occur in older men with the larynx being the most common site and the oral cavity. Histologically, the diagnosis requires that there be squamous carcinoma (insitu or invasive), ordinarily keratinizing, but it may be well to poorly differentiated. The squamous element may be difficult to find. The spindle cell component shows hyperchromatic nuclei with large reddish nucleoli and many mitoses, some of which are atypical. Mononucleated giant cells may also be present. There may be elements of bone and cartilage in the tumor. Necrosis is common.

Spindle cell carcinoma, larynx, in which keratinizing squamous carcinoma (single arrow) sharply abuts the spindle cell neoplasm (double arrows). The squamous component is keratinizing, the usual finding. The tumor had spread extensively to regional lymph nodes bilaterally.
Spindle cell carcinoma, poorly differentiated, larynx, showing hyperchromatic pleomorphic nuclei (large arrows) and cells that are elongated and fusiform with eosinophilic cytoplasm (small arrows). This section illustrates the spindle cell component which usually is predominant. This area stained for epithelial markers (cytokeratin).

Spindle cell carcinoma, larynx, with a multinucleated tumor giant cell (double arrows). Note the prominent nucleoli (small arrows) with their magenta color due to high DNA content, and several small blood vessels.
Spindle cell carcinoma, high power photo of junction of the two different cell types. Intercellular bridges (double arrows) are easily seen in the squamous portion. There are bizarre nuclear shapes with deep red nucleoli (single arrows), and a thin-walled blood vessel (center) in the spindle cell component.

**Clinical Aspects**

There seem to be no specific risk factors such as smoking associated with spindle cell carcinoma. When lymph node metastases are found, the cell type may represent either the spindle cell or the squamous cell component, or both. The differential diagnosis would include, among other conditions, melanoma, fibrosarcoma, and malignant fibrous histiocytoma. Surgery is the most effective therapy. Prognosis overall is poor.