Computed tomography of primary subglottic cancer: clinical importance of typical spread pattern.

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Abstract:

The spread pattern of 14 cases of primary subglottic cancer, as seen on computed tomography (CT), is analyzed. Cricoid cartilage invasion was present in nine cases. Tracheal invasion was definite in four cases and questionable in three. Extralaryngeal soft tissue spread was present in nine cases; all but one had cartilage destruction. The patterns of spread seen accurately reflect reports in previous whole-organ section studies, and suggest that the elastic cone has a primary role in directing the spread of tumor. Anticipating spread to areas described above with CT and/or magnetic resonance imaging (MRI) can be used to try to improve treatment planning and perhaps outcome by: (1) avoiding placement of urgent tracheostomies close to the tumor; (2) helping to modify standard surgical approaches by suggesting lower-than-usual tracheostomies, or more extensive-than-usual thyroid gland resection; and (3) avoiding delay in diagnosis by strongly suggesting rebiopsy when imaging indicates a tumor is present, and initial endoscopy and biopsy cannot confirm the imaging findings.

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