Laryngeal squamous cell carcinoma

Laryngeal squamous cell carcinoma (LSCC) has been shown to respond to 17β-estradiol. However, the presence and characterization of estrogen receptors (ER) and other sex hormone receptors in LSCC are still being determined. Sex hormone receptors and the way sex hormones impact LSCC tumors are important for understanding which patients would benefit from hormone therapies, such as anti-estrogen therapies. This information also has prognostic value, as there may be a correlation between ER profiles and LSCC aggression. Recent work by our team and others has shown that the canonical ER, estrogen receptor α (ERα), and its splice variant ERα36, are important modulators of estrogen signaling in LSCC. This review describes some common 17β-estradiol signaling pathways, and explains how these signaling pathways might control LSCC tumor growth. We also show that loss of ERα, but not ERα36, imbues LSCC with enhanced aggression, a pattern which has previously only been observed in breast cancer. We make a case for using ERα as a tumorigenic modulator and pathogenic marker in LSCC on par with the use of ERα as a prognostic marker in breast cancer [1)].

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Verma A, Schwartz N, Cohen DJ, Boyan BD, Schwartz Z. Estrogen signaling and estrogen receptors as prognostic indicators in laryngeal cancer. Steroids. 2019 Sep 17:108498. doi: 10.1016/j.steroids.2019.108498. [Epub ahead of print] Review. PubMed PMID: 31539535.