

Researchers ID potential prognostic marker for recurrence of head and neck squamous cell carcinoma

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A new study provides the first evidence that the mediator complex subunit 15 (MED15) may play a crucial role in the pathophysiology of head and neck squamous cell carcinoma (HNSCC). MED15 overexpression was found to be associated with higher mortality rates in HNSCC patients with cancer recurrence, particularly in oral cavity/oropharyngeal tumors, according to the study published in *The American Journal of Pathology*. MED15 overexpression was also associated with heavy alcohol consumption, which is an HNSCC risk factor.

HNSCC is the sixth most common [cancer](#) worldwide and has a high rate of recurrence and early metastatic disease, resulting in approximately 350,000 deaths each year. "Our findings suggest that MED15 may serve as a prognostic marker for HNSCC recurrence and as a therapeutic target in HNSCC patients suffering from recurrences," said lead investigator Sven Perner, MD, PhD, of the Department of Prostate Cancer Research, Institute of Pathology, and the Department of Otorhinolaryngology at the University Hospital of Bonn (Germany).

Mediator is a multiprotein complex that regulates many signaling pathways. In humans, it consists of 30 subunits including MED15, which has been implicated in breast and [prostate cancer](#), with particular attention being given to its link to transforming growth factor- β (TGF- β) signaling. "The evidence that multiple aberrant pathways account for the

progression of HNSCC calls for a much deeper understanding of the effect of molecules involved in these signaling pathways upon HNSCC progression," noted Dr. Perner.

To investigate the role of MED15 in HNSCC, the researchers analyzed tissues from 113 patients with primary tumors, 30 recurrent tumor tissues, 85 [lymph node metastases](#), and 20 control samples of normal squamous epithelial tissue. Using immunohistochemical staining, expression scores were calculated by multiplying staining intensity by the index of immunoreactive cells and categorized as no expression (

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