Is Oral Cancer Pain a Sign That the Disease Has Spread?

Those who experience high levels of pain are more likely to have their cancer metastasize to the neck's lymph nodes.

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People with oral cancer often experience pain that affects everyday activities, such as talking and eating. That pain may also indicate that their cancer has spread, according to new findings published in the journal Scientific Reports, reports New York University (NYU).

For the study, NYU scientists documented the pain experienced by 72 oral cancer patients before surgery using a questionnaire. Those who reported suffering from the most pain had a greater risk that their cancer had spread to the lymph nodes in their neck—a stage that cuts the chance of survival in half.

Patients with less pain are less likely to have their cancer metastasize, the researchers found. This has important real-life implications because these patients may not need to have a neck dissection, an invasive surgery to remove the lymph nodes in an attempt to eradicate the cancer. Almost 70% of these procedures are unnecessary, the researchers note.

The researchers also looked at the difference in gene expression between metastatic cancers from patients with high levels of pain compared to nonmetastatic cancers from patients who weren't experiencing pain. They identified 40 genes that were more highly expressed in painful metastatic cancers, which suggested these genes promote metastasis and mediate cancer pain.

Overall, their findings showed that pain is an indication of the severity of metastatic oral cancer.

"While we need to undertake a follow-up study, our current data reveal that a patient's pain intensity score works as well as the current method—depth of invasion, or how deeply a tumor has invaded nearby tissue—as an index to predict metastasis," said lead study author Aditi Bhattacharya, PhD, an assistant professor in the Department of Oral and Maxillofacial Surgery at NYU College of Dentistry and an investigator at NYU Bluestone Center for Clinical Research.

Researchers believe their findings may improve surgical decision making in treating the disease. By identifying genetic pain triggers, they note, the research may also lead to interventions that may help alleviate oral cancer pain.

To read the study, click here.

For related coverage, read “The Word of Mouth on Oral Cancer” and “Pre-Operative Immunotherapy Shows Promise in Oral Cancers.”
