

Bitter melon extract may have potential to fight head and neck cancer

November 18 2013

Extract taken from an Asian vegetable may have therapeutic qualities to treat head and neck cancer, a Saint Louis University researcher has found.

Preliminary findings of the research were published in the *Public Library of Science One* Journal by Ratna Ray, Ph.D. associate professor of pathology at Saint Louis University. Ray found that [bitter melon](#) extract, a vegetable commonly used in Indian and Chinese diets, reduces the head and [neck cancer](#) cell growth in the animal model.

"We wanted to see the effect of the bitter melon extract treatment on different types of cancer using different model systems," said Ray, who first tested the extract in breast and [prostate cancer cells](#). "In this study, the bitter melon extract treatment suppressed the head and neck cancer cell growth in the mouse model, reducing the growth of the tumor."

In a controlled lab setting, Ray found that bitter melon extract regulated several pathways that helped reduce the head and neck cancer cell growth in the [animal model](#). After a period of four weeks, Ray found that the growth and volume of the tumor had reduced.

Bitter melon is a tropical vegetable that is commonly used in Indian and Chinese cooking. Ray, who is originally from India, often uses bitter melon in her meals. People in Asia use this vegetable in stir fries, salads, and also drink its juice as part of a healthy diet.

Although more research is needed, Ray believes the bitter melon extract may enhance the current treatment option.

"It's difficult to measure the exact impact of bitter melon extract treatment on the [cell growth](#), but a combination of things – existing drug therapy along with bitter melon – may help the efficacy of the overall cancer treatment," Ray said.

Head and neck cancers, which account for 6 percent of all cancer cases, start in the mouth, nose, sinuses, voicebox and throat. They frequently are aggressive, and often spread from one part of the head or neck to another.

Before moving to phase I clinical trial with head and neck cancer patients, Ray said she and her team would need to validate their results with other preclinical models.

Ray's initial research found that treatment with this natural substance halted the breast and prostate [cancer cell growth](#), eventually stopping them from spreading.

Provided by Saint Louis University

Citation: Bitter melon extract may have potential to fight head and neck cancer (2013, November 18) retrieved 24 April 2024 from <https://medicalxpress.com/news/2013-11-bitter-melon-potential-neck-cancer.html>

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