Manuka honey does not decrease pain of radiation-induced esophagitis for lung cancer patients

September 15 2014

Patient-reported data indicates that when Manuka honey is prescribed for esophagitis pain during radiation therapy (RT), it is not more effective than standard medical care, according to research presented today at the American Society for Radiation Oncology's (ASTRO's) 56th Annual Meeting.

Esophagitis, inflammation that damages tissues of the esophagus and causes discomfort, is a common and temporary side effect experienced by the majority of lung cancer patients undergoing RT. Small studies have previously been conducted to evaluate if honey can prevent the loss of the normal surface of the mouth or throat caused by RT. It is important to reduce esophagitis pain so that patients' do not forgo eating; maintaining patients' positive nutritional status is vital during cancer treatment.

This study assessed the use of Manuka honey, a honey from New Zealand that is a standardized, medical grade honey. The randomized, phase II trial enrolled 163 lung cancer patients at 13 cancer centers who were undergoing concurrent chemotherapy and RT. Of the study group, ≥30 percent of the patients had received 60 Gy of RT to the espophagus (V60). There were no statistically significant differences in pretreatment characteristics within the study group.

Patients were assigned to three groups based upon treatment for

esophagitis—56 patients in Arm 1 received standard supportive care; 53 patients in Arm 2 received 10 ml of Manuka honey orally, four times per day; and 54 patients in Arm 3 received one lozenge, consisting of 10 ml of dehydrated Manuka honey, four times per day. The honey was administered on the first day of treatment and continued throughout RT.

After four weeks of RT treatment with and without Manuka honey, patients were asked to assess their pain during swallowing using the Numerical Pain Rating Scale (NPRS) scale, with a zero indicating "no pain," a five indicating "moderate pain," and a 10 indicating "worst possible pain." The study was designed to detect a 15 percent relative reduction of change in NPRS score, corresponding to a mean change score of 3.1 in Arms 2 and 3, as compared with Arm 1. The study concluded that there was no significant difference in levels of pain reported by patients within the three groups (mean change scores of 2.7, 2.1 and 2.1, respectively; p=0.73 for Arm 1 vs. Arm 2, p=0.68 Arm 1 vs. Arm 3).

Additionally, researchers evaluated secondary endpoints, such as the trend of the patients' pain over time, opiod use, adverse events, weight loss, quality of life, dysphagia and nutritional status. There were no differences in any of the secondary endpoints.

"The results from our study were somewhat unexpected since three previous trials had indicated that honey worked, and reducing esophagitis is important so that patients can continue eating their normal diet," said lead study author Lawrence Berk, MD, chief of radiation oncology, Morsani School of Medicine at the University of South Florida, Tampa. "A larger trial was just completed in Canada for a similar problem—mouth and throat pain during head and neck RT—and that trial also found no benefit with the honey. Both the Canadian study and our trial used Manuka honey, whereas previous trials all used a local honey. This is often a problem in using natural products–each batch or

type of product may be different, so it is hard to reproduce the effects seen by others. Currently, honey cannot be recommended for every patient to use for esophagitis pain relief. However, it is safe and inexpensive, so if patients want to try it, there is probably little harm. Patients with diabetes should be cautious with honey because it does have a high sugar load."

More information: The abstract, "Randomized Phase II Trial of Best Supportive Care, Manuka Honey Liquid and Manuka Honey Lozenges for Prevention of Radiation Esophagitis During Chemotherapy and Radiotherapy for Lung Cancer," will be presented in detail during a scientific session at ASTRO's 56th Annual Meeting at 3:15 p.m. Pacific time on Sunday, September 14, 2014.

Provided by American Society for Radiation Oncology