

Oatmeal-labeling ideal for molecular imaging of stomach emptying

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Patients undergoing molecular imaging to evaluate their stomach's ability to clear food are going to have an altogether new kind of breakfast. A study presented at SNM's 58th Annual Meeting has confirmed that nuclear medicine technologists can effectively use oatmeal products radiolabeled with a medical isotope to target and image the emptying of the stomach.

"The current standard for molecular imaging of gastric emptying is radiolabeling egg meal, but there are patients who, either due to [lifestyle choices](#) or allergies, cannot eat [eggs](#)," says Tory Maloy, senior nuclear medicine technologist at Northwestern Memorial Hospital, Chicago, Ill. "With this research we have demonstrated that there is an equally effective way to label oatmeal for gastric emptying studies."

Molecular imaging of gastric emptying is a common procedure, and current scientific literature advises nuclear medicine technologists to radiolabel egg meal as an imaging agent for patient consumption prior to imaging. This study marks the first of its kind examining the proper method for radiolabeling instant oatmeal products, both traditional and gluten-free.

During the study, researchers used an imaging agent called Tc99m SC (sulfur colloid) both before and after [boiling water](#) for oatmeal preparation. Small amounts of water were added to samples of the oatmeal products. Separation of the oatmeal that was bound successfully with the agent from the remaining unbound agent was achieved with low-speed centrifugation for two minutes. Radiolabeling activity was gauged with a dose calibrator and compared to that of standard radiolabeled egg meal.

Results of the study showed that radiolabeling was significantly improved by labeling prior to boiling water and that radiolabeled oatmeal was just as effective as egg meal for the [molecular imaging](#) of

gastric emptying. This study expands the current scientific literature regarding radiolabeling for gastric emptying studies and provides patients a safe and effective alternative to imaging with radiolabeled egg meal.

More information: Scientific Paper 2334: T. Maloy, M. Herrera, M. Zimmer, S. Spies, Northwestern Memorial Hospital, Chicago, IL; "Optimal radiolabeling methods for Tc99m Sulfur Colloid oatmeal products for gastric emptying," SNM's 58th Annual Meeting, June 4-8, 2011, San Antonio, TX.

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