



[Home](#)
[Announcements](#)
[Archives](#)
[Fast Track Issue](#)
[Search](#)
[User](#)
[About](#)
[FYI](#)
[Go to mat.or.th](#)

Journal of the Medical Association of Thailand, Vol 96, No 4

Home > Vol 96, No 4 > [Apisarntharak](#)

Font Size: [A](#) [A](#) [A](#)

Comparison of Pasteurized Whole Milk, UHT Whole Milk, Water, and Diluted Iodine Contrast as Computed Tomographic Enteric Contrasts

Piyaporn Apisarntharak, Tawanmai Tiangpug, Sopa Pongpornsup, Sureerat Janpanich, Thanyaporn Suwannast

Abstract

Objective: To compare four computed tomographic (CT) enteric contrasts (pasteurized whole milk, UHT whole milk, water, and diluted iodine contrast) in various aspects, including gastrointestinal (GI) distension, mural visualization, GI landmark distinction, taste, patients' satisfaction, adverse effects, and prices.

Material and Method: Sixty patients scheduled for whole abdominal CT at the present institution were randomized to receive 1,000 ml of pasteurized whole milk (n = 15), UHT whole milk (n = 15), water (n = 15) and diluted iodine contrast (n = 15) as CT enteric contrasts. Two radiologists separately assessed the GI distension (using a 4-point scale: poor, partial, good, and full), mural visualization (using a 3-point scale: poor, partial, and good), GI landmark distinction at esophagogastric (EG) junction, ampulla of Vater, and pancreatic head-duodenal loop (using a 3-point scale: poor, partial, and good). The participants graded the taste of received enteric contrasts and their satisfaction using a 4-point scale (unacceptable, unpleasant, acceptable, and pleasant). Adverse effects were evaluated by GI associated symptoms (nausea, vomiting, abdominal cramping/discomfort, and diarrhea).

Results: Pasteurized whole milk was superior to other agents in GI distension and tended to be better than other agents in mural visualization and GI landmark distinction. No difference in taste and patients' satisfaction was noted between pasteurized whole milk and other agents. Gallbladder collapse was inevitable in participants with pasteurized and UHT whole milk consumption, due to 4% fat content in whole milk. GI adverse effects were more common in whole milk group than other agents. The prices of pasteurized whole milk, UHT whole milk, water, and diluted iodine contrast were about 42, 40, 14, and 36 Baht, respectively.

Conclusion: Pasteurized whole milk is an attractive oral contrast agent, providing good GI distension, mural visualization, and GI landmark discrimination. Apart from gallbladder collapse, increase of GI adverse symptoms was another major drawback of whole milk when used as CT oral contrast, especially in Thai people.

Keywords: Pasteurized milk, UHT milk, Whole milk, Iodine contrast, CT, computed tomography

Full Text: [PDF](#)

The Medical Association of Thailand

Address: 4th Floor, Royal Golden Jubilee Building, 2 Soi Soonvijai, New Petchburi Road, Bangkok 10310, Thailand

Telephone: 0-2716-6102, 0-2716-6962 press 0 Fax: 0-2314-6305

E-mail: jmedassocthai@yahoo.com, math@loxinfo.co.th 