SENSORY ANALYSIS AND RANDOMIZED, CONTROLLED TRIAL OF THE MILK-MUCUS BELIEF

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The belief that "milk produces mucus" is widespread in the general community, and is associated with a significant reduction in milk consumption. We have conducted two earlier studies on the belief in which we looked at the effect of milk drinking on nasal secretion weights (Pinnock et al, 1990), and the effect of milk drinking on respiratory symptoms and air flow in asthmatic children (Pinnock et al, 1989). We have not yet documented the non-symptomatic effects claimed by believers, and tested these in a randomized controlled trial.

We report here, results of interviews with 169 individuals, 70 of whom hold the milk-mucus belief. A common pattern of responses emerged, and was used in questionnaire instrument designed to measure the perceived milk-mucus effect. A flavoured drink was developed from a soy-based product which was indistinguishable from milk in pretesting. This was then used as a placebo in a conventional randomized, controlled, double blind test of the perceived milk-mucus effect. The table shows the increase in milk-mucus indicator variables following milk and placebo drinks at time 1, 5 minutes; time 2, 4 hours; time 3, 24 hours (responses o, no increase; + increase significant at 5% level; ++ increase significant at 1% level adjusted for multiple comparisons).

	MILK Time			PLACEBO Time		
Symptom	1	2	3	1	2	3
1. Coating over mouth, back of throat	++	0	0	++	0	0
2. Need to swallow a lot	++	0	0	++	0	0
3. Saliva thicker, harder to swallow	++	0	0	++	0	0
4. Want to cough/spit up phlegm/mucus*	0	0	0	+	0	+
5. Mouth breathing difficult	0	0	0	+	0	0
6. Need to clear throat	0	0	0	+	0	0
7. Mucousy/claggy at back of throat	0	0	0	+	0	0
8. Nose breathing difficult*	+	0	0	0	0	0

* difference between milk and placebo groups significant at 5%level

Of the 14 milk-mucus indicator variables used, 3 showed significant increases after the milk drink. They were "coating/lining over the mouth , throat or tongue" (39% increase), "need to swallow a lot" (31% increase) and "saliva thicker, harder to swallow than before" (42% increase). However these increases occurred in both milk and placebo groups. It is concluded that the effect, if real, is not specific to milk, but can be duplicated by a similarly formulated milk substitute.

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