
The paper states that "Milk samples were obtained freshly within 30 minutes before massage and immediately after massage from healthy, exclusively breast-feeding Japanese mothers."

This implies that the post-massage samples were taken within an hour of the women having expressed their first or pre-massage samples. Thus, by definition, they are comparing different types of milk, i.e. fore- milk vs. hind milk, which may be affected by other parameters besides the massage. The only way to adequately test this would be to divide the mothers into two groups – one to receive massage and one not. Both groups should have two samples each taken at similar time intervals and by similar techniques.

The article further demonstrates that "Breast massage caused a slight decrease in whey protein level in early lactation milk....Casein levels in the early lactating period were significantly decreased by breast massage ($P <0.001$)."

This is probably a detrimental finding, as casein enhances absorption of minerals by keeping them in solution in the intestinal tract. Casein fragments may help regulate intestinal motility, promote the growth of beneficial bacteria,

<table>
<thead>
<tr>
<th>TABLE 2. Effect of breast massage on the component concentration of mother’s milk for different lactating periods (g/100 mL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early lactating period (before 3 months)</td>
</tr>
<tr>
<td>Premassage</td>
</tr>
<tr>
<td>Whey protein</td>
</tr>
<tr>
<td>Casein protein</td>
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<tr>
<td>Lipid</td>
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<tr>
<td>Lactose</td>
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<tr>
<td>Ash</td>
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<tr>
<td>Total solid</td>
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</table>

This table demonstrates that lipids were significantly increased in the late lactating, post-massage samples. Do we know that this is a beneficial effect? More is not always better! It is know that in a healthy breast feeding infant 90-95% of ingested fat is absorbed. If we increase fat intake by 22%, will the excess lipid be absorbed? If so, is it healthy?
We are told that "Furthermore, the increase of lipid and total solids by breast 
massage might change the taste of the breast milk, which may also result in 
better satisfaction of the infant."

Do we really want to pre-condition our babies at such a young age to prefer a 
fattier taste?

In addition, we have no information as to what massage might do to mothers who 
may be taking various medications deemed to be safe under normal 
circumstances. Is it possible that massage might enhance excretion of certain 
substances and relegate them now to unsafe levels. What about mothers who 
are carriers of hepatitis or other viruses – does massage possibly increase 
excretion?

In summary, I feel that this paper is not scientifically valid and that its conclusions 
overstate its results. I do not feel that at this point there is any justification for 
making any sort of global recommendations based on this sort of work.

Finally, The Facts about Breastfeeding sheet 2005 States:

"Current scientific investigation discovers new information, validates 
previous research, and discredits non-research-based practices. The 
Oketani method of breast massage, widely used in Japan and other Asian 
countries, changes the composition of human milk by increasing total 
solids, lipids, and casein concentration. Oxytocin and prolactin are 
thought to increase gross energy and lipid content, satisfying the infant 
and resulting in improved growth and development. Increased fat content 
may also induce an anti-allergic effect. Foda, M. I. et al Composition of 
milk obtained from unmassaged versus massaged breasts of lactating 

This is clearly NOT what the article says, as it explicitly demonstrates a decrease 
in casein concentration (see table 2.)

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