



## PIC QUESTION OF THE WEEK: 1/11/10

Q: What are the current recommendations for using contrast media in breastfeeding mothers?

A: There are millions of radiologic examinations conducted in this country each year and the images are routinely improved (*enhanced*) by the administration of contrast media. *Iodinated* contrast media are used in many studies including computed tomography (CT) while *gadolinium* salts improve visualization in magnetic resonance imaging (MRI) (PIC Question of Week 9/03/07). Because of the increase in the number of children now breastfeeding, there has been renewed interest in the safety of administering contrast media to lactating women. Iodine passes readily into breast milk; however, the element is highly bound in organic contrast media resulting in negligible amounts of free iodine. It is estimated that  $< 1\%$  of an administered dose of *iodinated* contrast media enters breast milk and that a similar quantity is actually absorbed by a breastfeeding infant. In most cases, this amounts to  $< 0.01\%$  of the dose that would actually be administered to an infant receiving some type of imaging study. Systemic exposure of breastfeeding infants to maternal administration of *gadolinium* complexes produces similar results. It is estimated that the amount of gadolinium absorbed by breastfeeding children would be approximately 0.04% of the labeled pediatric dose ( $\geq$  two years of age). There are no published reports of adverse effects in breastfeeding children exposed to either iodinated or gadolinium-based contrast agents. Both the American College of Radiology (ACR) and the European Society of Urogenital Radiology recommend that women need not discontinue breastfeeding after enhanced radiologic examinations with either type of agent. The ACR, however, recommends that women who continue to express some reservation be advised of an option to discontinue breastfeeding for 24 hours after the procedure while continuing to express and discard milk from each breast. Although this option may alleviate the concern of some mothers, most authors and radiology organizations consider it completely unnecessary to discontinue breastfeeding in women receiving iodinated or gadolinium-based contrast media.

### References

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