

tigram (anterior view) in a 42-yrold woman breastfeeding with the left breast 2 days after the second <sup>131</sup>I treatment for thyroid carcinoma. There is intensive uptake in the left breast with nearly no visible radioactivity on the contralateral side or in the thyroid

## REFERENCES

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- 4. Bakheet SM, Hammami MM. Patterns of radioiodine uptake by the lactating breast. Eur J Nucl Med 1994;21:604-608.

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**REPLY:** We read the comments of Grunwald et al. with interest. In our study (1), we were initially uncertain whether prolonged discontinuation of breast feeding would be required after total thyroidectomy since the magnitude of the second exponential component of the <sup>131</sup>I breast milk activity concentration curve (incorporation of <sup>131</sup>I into thyroid iodoproteins and subsequent recycling) might be expected to be greatly reduced. This proved optimistic and we agree that breast feeding is contraindicated following <sup>131</sup>I administration (2).

The absorbed dose to the lactating breast is high, although the validity of our model is uncertain. Mammary epithelial cell loss associated with involution may affect the consequences of this exposure. Confusion of breast <sup>131</sup>I uptake with functioning metastases of thyroid carcinoma should not occur if the physician remains aware of this possibility.

A further issue is the period for discontinuation of breast feeding prior to <sup>131</sup>I administration to minimize competition for <sup>131</sup>I uptake and the absorbed dose to the breast. Bakheet and Hammami reported <sup>123</sup>I or <sup>131</sup>I administration within 1 wk of cessation of breast feeding and showed significant breast uptake in all patients (3). It is possible that the various patterns of breast uptake described may be related to the stage of involution. Repeat <sup>123</sup>I administration in two patients demonstrated faint uptake at 5 wk and no uptake at 11 wk following cessation of breast feeding.

Studies of the composition of mammary secretion of women following abrupt termination of breast feeding show rapid alterations. Secretion involving transcellular transport (lactose, potassium) declines while leakage through intercellular junctions (immunoglobulins) increases. Most of the change occurs within 7-10 days, although secretory activity may still be present up to 42 days (4).

It would be sensible to discontinue breast feeding for as long as is practicable prior to administration of <sup>131</sup>I but further information is required.

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## **Diagnosis of Scaphoid Fractures: The Role of Nuclear Medicine**

TO THE EDITOR: In a recent editorial in the Journal, Holder et al. (1) criticized our study published in the same issue entitled "Choosing a Strategy for the Diagnostic Management of Suspected Scaphoid Fracture: A Cost-Effectiveness Analysis" (2). They do not agree that the most efficient approach in the diagnosis of scaphoid fracture is a combination of first-day scaphoid radiography followed by bone scintigraphy.

Holder et al. state that the inclusion of a consecutive series of patients is not representative for long-term outcome or cost-effec-