

we have changed our assessment of the degree of hydrocephalus. As we pointed out, however, we certainly would have missed some cases of altered subarachnoid anatomy using only  $^{169}\text{Yb}$ -DTPA. How important these alterations may be to the accurate assessment of each case is precisely the kind of information which is needed. The growing number of

reports of large quantities of retained  $^{169}\text{Yb}$  does cast serious doubts upon the accuracy of published dosimetry studies. For this reason we are now largely using  $^{111}\text{In}$ -DTPA.

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#### CALCIUM, PHOSPHORUS, AND $^{99\text{m}}\text{Tc}$ "UPTAKE"

The abnormal area of increased "uptake" of  $^{99\text{m}}\text{Tc}$ -polyphosphate reported by Grames and Jansen (1), as well as the findings reported at the recent Radiological Society of North America meeting concerning diphosphonate localization in breast tumors and areas of myocardial infarction, may well share the same mechanisms of localization with abnormalities detected on bone scanning: increased blood flow to the area and increased calcium content (probably hydroxyapatite).

Work from this laboratory has shown that  $^{99\text{m}}\text{Tc}$ -labeled diphosphonate deposition correlates with increased molar calcium and phosphorus content of the tissues studied (2). Increased blood flow from neovascularization of the lesion is probably the determining factor in the abnormal "bone scan" of Sugitani, et al (3).

Abnormal areas of increased uptake in breast tumors and areas of myocardial infarction could well be related to the calcium content of the abnormal

tissue. It would be helpful for investigators reporting abnormalities of  $^{99\text{m}}\text{Tc}$ -diphosphonate, pyrophosphate, or polyphosphate uptake to obtain tissue from the area of abnormal uptake and measure the molar calcium and phosphorus content.

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#### REFERENCES

1. GRAMES GM, JANSEN C: The abnormal bone scan in cerebral infarction. *J Nucl Med* 14: 941-943, 1973
2. SILBERSTEIN EB, FRANCIS MD, TOFE A, et al: Studies on the distribution of a technetium-99m diphosphonate in cartilaginous and osseous tissues and the effect of age on this process. *J Nucl Med* 14: 637-638, 1973
3. SUGITANI Y, NAKAMA M, YAMAUCHI Y, et al: Neovascularization and increased uptake of  $^{99\text{m}}\text{Tc}$  in experimentally produced cerebral hematoma. *J Nucl Med* 14: 912-916, 1973

#### ERRATUM

In the article entitled "Use of  $^{99\text{m}}\text{Tc}$ -DTPA for Measuring Gastric Emptying Time," by Ta. K. Chaudhuri (*J Nucl Med* 15: 391-395, 1974) the captions for Figs. 5 and 6 were transposed due to a printer's error. The text for these captions should be:

FIG. 5. Typical elevation in middle of curve in case of jejunal overlap.

FIG. 6. Linear relationship between counting rate and decrease of volume of stomach phantom.