

FIG. 1. Calcium-49 counts, from all patients and volunteers not over 55 yr of age, as a function of body size (mean of maximum height and arm span). Males are indicated by squares, females by circles. Open symbols are for normal volunteers, closed symbols for patients with proven osteoporosis. Solid line shows mean for normal volunteers, dotted lines ± 2 s.d.

١

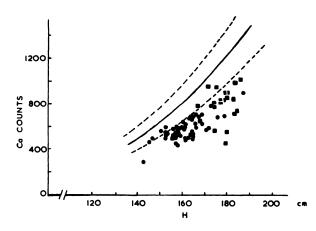


FIG. 2. Results for osteoporotics of all ages. Males are indicated by squares, females by circles. Lines are taken from Fig. 1.

values for osteoporotic patients of all ages. Again, the separation between normal adults \leq 55 yr and patients is clear.

In terms of CaBI, the normal mean is 1.00 (s.d. = 0.1), and that for all osteoporotics is 0.69 (s.d. = 0.11). The mean age for all osteoporotics was 56 yr (range, 21-78). Subdividing, the 32 patients \leq 55 yr had a mean CaBI of 0.66 (\pm 0.10), and the 43 subjects over 55 yr had a mean value of 0.70 (\pm 0.10); these two groups are not significantly different (p > 0.05). We note that 88% of the osteoporotic subjects have a CaBI less than 0.80-2 s.d. below the normal mean.

Finally, 26 volunteers over 55 (mean age 64 yr, range 59-75) had a mean CaBI of 0.88 (\pm 0.13), the 11 men having a higher value (0.96 \pm 0.13) than the 15 females (0.83 \pm 0.10).

K. G. McNEILL J. E. HARRISON University of Toronto Toronto, Ontcrio, Canada

REFERENCES

1. WAHNER HW, RIGGS BL, BEABOUT JW: Diagnosis of

osteoporosis: Usefulness of photon absorptiometry at the radius. J Nucl Med 18: 432-437, 1977

2. MCNEILL KG, THOMAS BJ, STURTRIDGE WC, et al: In vivo neutron activation analysis for calcium in man. J Nucl Med 14: 502-506, 1973

3. HARRISON JE, WILLIAMS WC, WATTS J, et al: A bone calcium index based on partial body calcium measurement by in vivo activation analysis. J Nucl Med 16: 116-122, 1975

4. HARRISON JE, CUMMING WA, FORNASIER V, et al: Increased bone mineral content in young adults with familial hypophosphatemic vitamin D refractory rickets. *Metabolism* 25: 33-40, 1976

5. HARRISON JE, MCNEILL KG, MEEMA HE, et al: Partial body calcium measurements on patients with renal failure. *Metabolism* 26: 255-265, 1977

6. AL-HITI K, THOMAS BJ, AL-TIKRITY S, et al: The technique and clinical applications of spinal calcium measurements. Proceedings of 2nd East Kilbride Conference on Progress and Problems of In Vivo Activation Analysis, 1976, ed. Glasgow, Boddy K. Scottish Research and Reactor Centre, SURRC 57/76.

Reply

Our statement regarding the need for an instrument capable of measuring bone mineral in the axial skeleton was not made with the intention to minimize the contributions already made in this direction. On the contrary, several very promising new techniques have been developed in the last decade. The most promising approaches in my opinion are the neutron activation analysis as described above by McNeill, et al. and the dual photon attenuation techniques developed independently by Price, et al. (1) and Mazess, et al. (2). While the technical problems of these techniques seem almost resolved, the definition of normal and abnormal and clearly defined indications for the usefulness of these techniques are still being considered.

> HEINZ W. WAHNER Mayo Clinic and Foundation Rochester, Minnesota

REFERENCES

1. PRICE RR, WAGNER J, LARSEN KH, et al: Techniques for measuring regional and total body bone mineral mass/ bone function ratios. International Symposium on Medical Radionuclide Imaging, IAEA-SM-210/164. Los Angeles, Oct. 25-29, 1976. IAEA, Vienna: in press

2. MAZESS RB, WITT RM, PEPPLER WW, et al: Progress in photon absorptiometric determination of bone mineral and body composition. Proceedings ERDA X- and Gamma-Ray Symposium. Ann Arbor, Mich., May 19-21, 1976 (Conf 760539). NTIS, pp 111-113

A Case Report of Lymphangioleiomyomatosis?

In the article by J. M. Woolfenden and T. B. Struse, entitled "Diagnosis of Chylothorax with ^{1m}I-Triolein: Case Report", in the February issue of the *Journal*, they describe a method of diagnosing chylous effusion and present a case report of a chylothorax in a 37-year-old woman, in whom a definite diagnosis has not been established.

In their discussion they analyze various causes of chylothorax but fail to include lymphangioleiomyomatosis as one of the differential possibilities. Lymphangioleiomyomatosis was first recognized as a special entity by Laipply and Sher-