

Self-Study Test series (1). The list of possible answers included: Legg-Perthes disease, septic arthritis, hemarthrosis, Gaucher's disease, transient synovitis of the hip and chondroblastoma.

Of these, the correct answers were given as all of the choices with the exception of chondroblastoma. We would like to point out an important error. Conditions which involve a fluid collection within the hip joint capsule under pressure do not produce the scan findings illustrated. These conditions which can include septic arthritis, transient synovitis and hemarthrosis cause a generalized decrease in blood supply to all the structures within the hip joint capsule. This produces the "cold hip" sign (2), which shows a markedly decreased blood pool in the structures within the hip joint capsule on the blood-pool phase with a decrease in the same structures in the delayed scans and includes the proximal growth plate of the femur. In Legg-Perthes disease and in the case illustrated, the scan pattern is quite different because the proximal growth plate is not affected by the avascular process.

This is a very important point in the interpretation of scans in children with an irritable hip. Thus, answers septic arthritis, hemarthrosis and transient synovitis of the hip were not correct in the case illustrated. This case clearly shows an avascular process confined to the femoral head. Therefore, the correct answers are Legg-Perthes disease and Gaucher's disease.

REFERENCES

1. Self-Study Test—Skeletal Nuclear Medicine. *J Nucl Med* 1992;33:1934,1993,2035,2044.
2. Uren RF, Howman-Giles RB. The "cold hip" sign on bone scan. A retrospective review. *Clin Nucl Med* 1991;16:553-556.

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REPLY: Drs. Uren and Howman-Giles conclude that the case presented could not represent septic arthritis, hemarthrosis or transient synovitis of the hip because decreased activity is noted only in the femoral capital epiphysis and not in the adjacent physis or femoral neck. I disagree and I believe the authors are confusing the sensitivity of the "cold-hip" sign for diagnosis of a tense hip joint effusion with its positive-predictive value (or likelihood ratio). The former is likely to be rather modest, whereas the latter is probably quite high.

In an earlier communication (1), Drs. Uren and Howman-Giles have emphasized the importance of the "cold-hip" sign, noting that surgical drainage or aspiration of any hip showing this sign is justified by the high frequency of septic arthritis when the sign is present (22%). However, their study does not include data that would allow one to conclude that the finding of decreased activity in the femoral capital epiphysis alone excludes a tense hip joint effusion. The results of Kloiber et al. (2) suggest that this is not the case, and that isolated decreased uptake in the femoral capital epiphysis can indeed be the consequence of an effusion. In such cases, differentiation of avascular necrosis from tense effusion would not be possible by scintigraphy alone (unless the blood-pool images demonstrate a zone of decreased activity corresponding to the fluid collection itself). Thus, particularly with symptoms of short duration and if radiographs do not demonstrate findings of avascular necrosis, further investigation by ultrasonography or aspiration of the hip joint is warranted.

REFERENCES

1. Uren RF, Howman-Giles R. The "cold hip" sign on bone scan. A retrospective review. *Clin Nucl Med* 1991;16:553-556.
2. Kloiber R, Pavolsky W, Portner O, Gartke K. Bone scintigraphy of hip joint effusions in children. *AJR* 1983;140:995-999.

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Brookhaven National Laboratory and the BLIP Upgrade

TO THE EDITOR: I read with interest the well balanced article by J. Rojas-Burke in the April *Newsline* regarding the isotope supply situation. Brookhaven National Laboratory regards the Brookhaven Linac Isotope Producer (BLIP) upgrade project very seriously. It is an interim solution limited in scope that cannot and will not compete with the National Biomedical Tracer Facility (NBTF). We are committed to achieving this mission in the best way possible and to the satisfaction of the community. To assist in fair and equitable distribution of radioisotope, our present BLIP Users Advisory Committee will be expanded to include more scientists from the nuclear medicine community. This committee will report directly to me and, in addition to providing general advice and guidance, will be asked to help establish appropriate priorities consistent with available resources.

I am puzzled by some of the comments ascribed to Dr. Richard Holmes of the University of Missouri, Columbia. In particular, the statement: "History has not shown that Brookhaven is capable of doing what they say they can do." The "history" alluded to does not exist. In the past, the BLIP program has not operated year-round nor has it ever attempted to satisfy every researcher's need for isotopes. We never had this mandate or mission, nor the funding. We have always tried our best, given these constraints, to be of service to the community by providing certain isotopes during the time that BLIP operated each year. Most of the isotopes on our list are spin-offs from our OHER-supported research program. The reliability factor of BLIP during scheduled operations has averaged 95% over the years. During the last five years, we have made 544 shipments. Dr. Holmes has never requested or received a shipment from BNL. Thus, I am certain that "history" shows that Brookhaven has done what they said they could do and that we can do much better than Dr. Holmes thinks we can.

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Production of High Purity Fission Molybdenum-99 in South Africa

TO THE EDITOR: We have followed with great interest the recent articles in *Newsline* describing the global situation around the supply of fission ^{99}Mo for $^{99\text{m}}\text{Tc}$ generator production. Your latest article prompts us to advise you of current developments in ^{99}Mo production in South Africa.

Since April 19, 1993, ^{99}Mo required for the manufacture of our