O. Bone and Joints

Scintigram on the Aseptic Necrosis of the Femoral Head

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Scintiscannings with aid of 85Sr, 87 mSr, pyrophate or diphosphanate labeled with 99 mTc were performed on 58 cases of aseptic necrosis of the femoral head in total of 92 times.

Correlation between stage of the disorder, roentgenographic findings and scintigraphic feature was investigated in this paper.

In the stage with pain at the hip but with no abnormal roentgenographic findings, scintigram showed uptake of roundish shape pattern at the femoral head.

In the cases with sclerotic or cystic lesion at the head on roentgenogram, scintigram revealed mainly increased uptake at the head and neck, but sometimes discolosed localized defect.

In the cases with progression to the joint space narrowing, most scintigram showed further uptake to the acetabulum besides the femoral head.

When the scintigram was used for follow-up study on the cases with unilateral involvement of spontaneous necrosis, early detection could be possible on contralateral side.

From these observations, it was concluded that scintigraphy was quite useful method and could be available for early detection of this disorder, differential diagnosis, assessment of the stage and prognosis.

Thus one could determine the method of treatment especially the selection of operative procedure according to the evaluation of scintigraphic findings.

The Study Radionuclide (^{99m}Sr and ^{99m}Tc-p) Uptake in Capital Femoral Epiphysis in Transient Synovitis and Legg-Calve-Perthes' Disease —Especially Detection in Early Stage and Sequential Study—

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The purpose of this Study is to investigate the difference of radionuclide (^{87m}Sr and ^{99m}Tc-P) uptake in capital femoral epiphysis in transient synovitis and Legg-Calvé-Perthes' disease at early period, and the difference of sequential changes of radionuclide uptake at the area.

Materials and Methods

Thirty-seven cases of unilateral type of Legg-Calvé- Perthes' disease and fifty-four cases of unilateral type of transient synovitis were selected for this study. At each examination, from 100 μCi to 1 mCi of ^{87m}Sr or ^{99m}Tc-P was injected intravenously one to three hours previously. Scintigram was taken and the measurement of the count on both sides of the capital femoral epiphysis was performed. The counted value was