

and then area scanning later, and in the case of the disease of extremities, we always compared the diseased side with the healthy side.

The photoscintigram has been analyzed by computing system using rescanning device since 1971. The data can be used for Medical Analyzing Device, such a "SCINTIPAC", get a quantity of the uptake of radioisotope in isocounting rate curve, isocounting rate distribution map and 3-dimensional display, and further, to the some

areas of bone in the cases of osteomyelitis.

According to the data of the quantitative information, therefore, it may also be possible to make a diagnosis and finding on the process of disease.

As a conclusion, the application of scintiscanning for periosteomyelitis is one of the best method to know the findings on the location of foci and to known degree of clinical healing, in addition to X-ray and clinical findings.

### **Studies of Arthritis by Scintiscanning and Analysis of Build-Up Curve**

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Technetium ( $^{99m}\text{TcO}_4^-$ ) scintigraphy of knee joints of 30 patients showed abnormal localization of isotope. Scintiscanning were done 30 minutes after the intravenous administration of 1.5 mCi of  $^{99}\text{Tc}$ -pertechnetate.

Scans of normal knee joints were negative and scans of rheumatoid arthritis, osteoarthritis, pyoarthritis and synovitis simplex were positive.

$T_{1/2}$  of Build-up curve of normal joints were 0.263, and of osteoarthritis were 0.265.

These abnormal scintigraphy showed activity of localization and followed up treatment. Therefore,  $T_{1/2}$  of Build-up curve and scintigraphy could not showed differential diagnosis of joints diseases. But scintigraphy is one of important examination.