

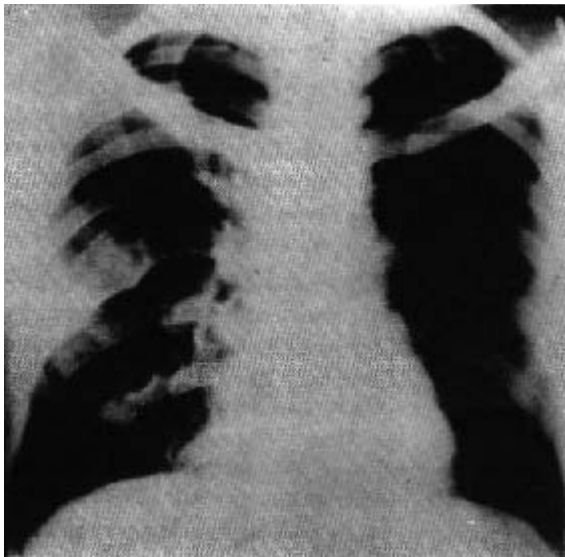
## Case Report

# TC-99m MDP SCANNING IN FIBROUS DYSPLASIA

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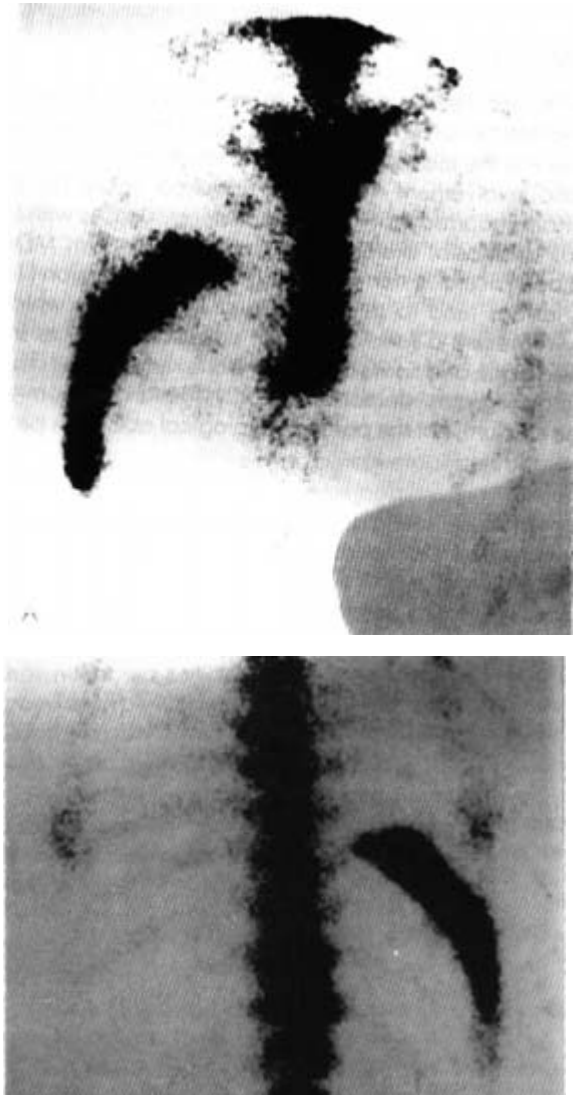
Fibrous dysplasia of bone has been recognized as a separate entity by Lichtenstein in 1934 (4). These are monostotic and polyostotic forms. The monostotic form is often thought to be innocuous. Defining polyostotic form from monostotic form is not always possible by conventional radiological examinations. Phosphate compounds of technetium was used to reveal increased activity depending on vascular supply and degree of remodelling of the lesion since the introduction of Tc-99m in 1971 (7).

Figure 1: X-Ray of the patient at admission. Expansion of the 8th rib without cortical destruction and ground glass appearance, these features are consistent with fibrous dysplasia.



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Figure 2A-2B: Anterior (A), posterior (B) imaging with Tc-99m MDP displays increased uptake along 8th rib, T11-T12 vertebrae, suggestive of polyostotic disease.



## CASE REPORT

A 23 year old man complained of pain at the right lower side of his chest and had a swelling of the 8th rib, just posterior to axillary line. His routine whole blood count, erythrocyte sedimentation rate, alkaline phosphatase level were within normal limits. Routine X-Ray disclosed an expanding lesion of the right 8th rib leaving cortex of the bone intact and without cystic areas with an appearance of ground glass (Figure 1). The lesion displayed increased activity all through its length and increased activity was also observed in T11-12 vertebrae on Tc-99m methylene diphosphonate (Tc-99m MDP) imaging (Figures 2A, 2B). Excisional biopsy of the rib and needle biopsy of the rib and needle biopsy of the vertebrae was performed. Histopathological examination was consistent with fibrous dysplasia.

## COMMENTS

Although fibrous dysplasia of bone is not infrequent monostotic involvement of the rib may be confusing because it is the most common site of involvement and polyostotic involvement may be overlooked easily (2,3). Fortham reported that in a limited series of cases with fibrous dysplasia skeletal scanning using Tc-99m MDP had been useful in demonstrating extent of the lesion (1). The lesions tend to demonstrate striking uptake which may represent a function of rich vascular supply to involved bone and some degree of bone remodelling. The roentgenograms demonstrate only the distribution of bone calcium, not the pathophysiological activity or progression of fibrous dysplasia (5,6). It is also a very valuable tool in revealing polyostotic form. This case is presented to

define the role of Tc-99m MDP imaging in demonstration of unsuspected lesions whenever fibrous dysplasia is encountered.

## REFERENCES

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