

Increased bone mineral turnover without increased glucose utilization in sclerotic and hyperplastic change in fibrous dysplasia

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Fibrous dysplasia is a benign bone disorder. It is diagnosed by distinctive X-ray radiography, CT, and MRI findings. Although bone scintigraphy helps to identify the tumor origin according to accelerated bone turnover, the glucose metabolism in fibrous dysplasia has not yet been investigated. We reported a case of fibrous dysplasia in craniofacial bone which showed signs of the acceleration of bone mineral turnover without elevated glucose utilization by Technetium-99m-HMDP SPECT and Fluorine-18-FDG PET. We concluded that the growth of fibrous dysplasia needed the acceleration of bone mineral turnover without an increase in glucose metabolism.

Key words: fluorine-18-fluorodeoxyglucose, positron emission tomography, fibrous dysplasia, Tc-99m-hydroxymethylene diphosphonate