Interesting Image

^{18}F-FDG PET/CT 에서 하지골 골수에 다발성 이상섭취를 보인 비특이성 염증성질환

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Non-specific Inflammatory Disease Showed Abnormal FDG Uptake in Lower Extremities

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Including malignancy, various disease can show abnormal uptake in bone marrow.[1,2] We report a case of non-specific inflammatory FDG uptake in bone marrow mimicking malignancy. A 35-year old woman with fever of unknown origin (FUO) underwent ^{18}F-FDG PET/CT to find out fever focus and unknown malignancy. ^{18}F-FDG was injected and imaged 1hr after injection with Discovery ST (GE, USA). ^{18}F-FDG PET/CT whole body image showed abnormal uptake in lower extremities (Fig. 1). MRI and biopsy was also done in the sites of abnormal uptake. PET and MRI suspect malignancy (Fig. 2, 3), but biopsy result was non-specific inflammatory process (Fig. 4). The patient was improved her clinical condition after antibiotics therapy. (Nucl Med Mol Imaging 2008;42(1):79-80)

Key Words: ^{18}F-FDG, FUO, bone marrow

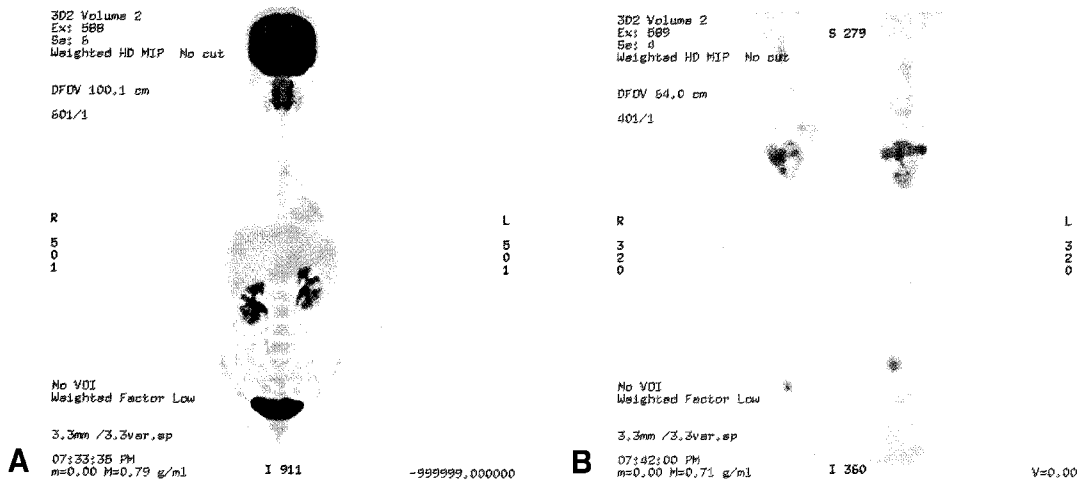

Figure 1. (A B) ^{18}F-FDG PET whole body image showed abnormal uptake in both leg (both distal femur, both proximal tibia, left distal tibia and right talus).

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Figure 2. Fusion PET and CT image showed abnormal uptake in both proximal tibia (marrow portion). SUVmax was 4.0 in left tibia.

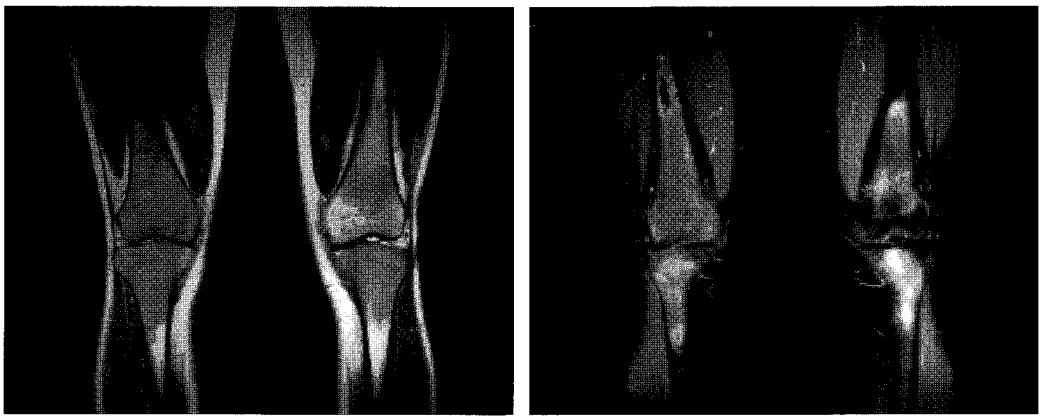

Figure 3. MRI (T1 and T2) image showed increased signal intensity in both femur and tibia which suspect Leukemia or Lymphoma. No inflammation or mass in the bones and soft tissues. Diffuse loss of normal fat signal intensity in the distal femurs and proximal tibia, both knees.

Figure 4. Biopsy (left proximal tibia, cortex and medulla) showed increased lymphocytic infiltration, favor reactive or inflammatory process and no evidence of osteomyelitis, granuloma and malignancy. (1. Nested polymerase chain reaction for Mycobacterium tuberculosis: Negative 2. Immunohistochemical stain for CD117 (for mast cell): Negative)

References

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