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. 11 가

3

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2-8%

(40%) 11

(60%) 가

( ) ,

9).

가

<sup>1)</sup>.

1

가

(Fig. 1),

:

50

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(Fig. 2).  
(mesenchymal  
chondrosarcoma)  
8 cm

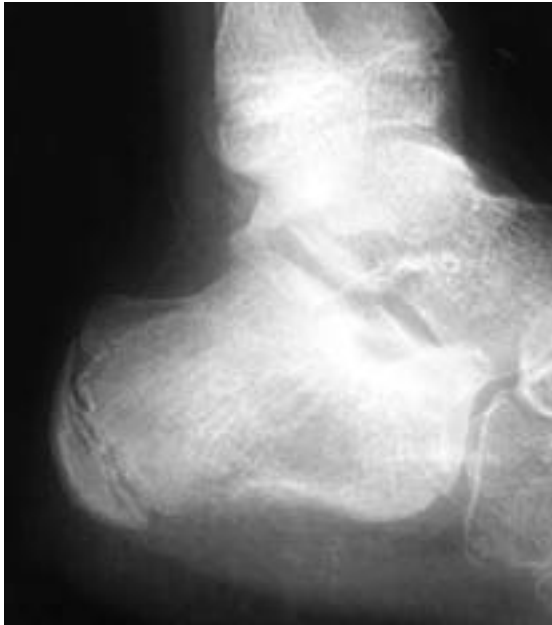


Fig. 1. Initial plain radiography of left ankle showing osteolytic lesions in the calcaneus without definite periosteal reactions

7x5 cm  
가  
2003 9  
6.5x  
4 cm 가  
가  
(Fig 3A,B,C).  
가  
가  
(Fig, 3D).

, Nakashima  
(60%)가 (40%)  
가 (25%),

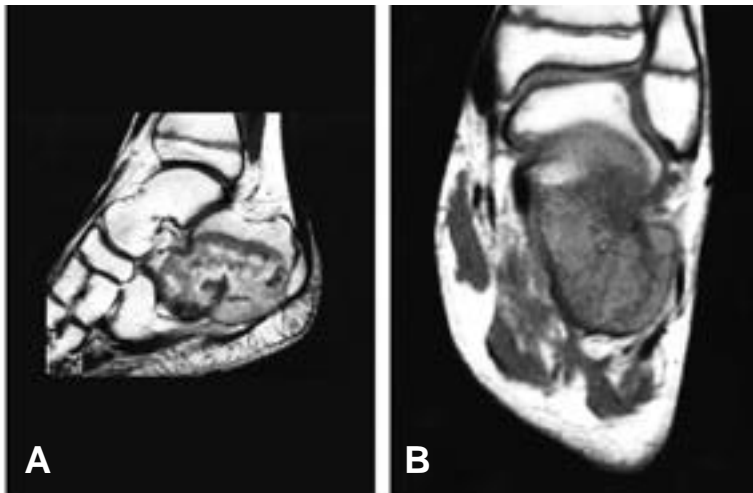
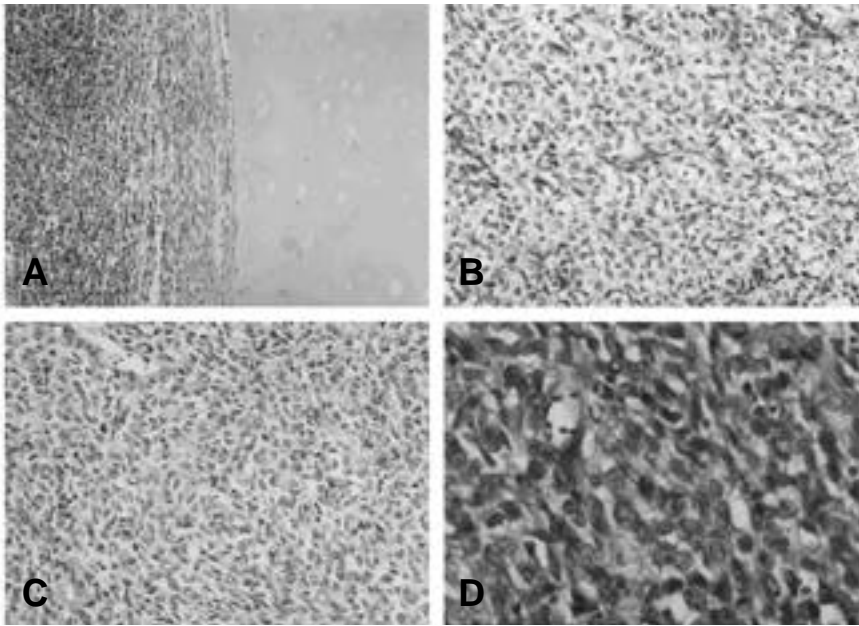


Fig. 2. Initial MRI images demonstrate heterogeneous signal intensity lesion and soft tissue extension.



**Fig. 3.** (A) The pathologic findings of biopsy specimen, showing abrupt transition from small undifferentiated mesenchymal cells to cartilage component. (H&E, × 100) (B, C) The pathology specimen shows solid cellular growth of small undifferentiated mesenchymal cells. (H&E, × 200). (D) The pathology specimen shows high magnification of cellular area reveals undifferentiated round, oval cells with ovoid hyperchromatic nuclei and scanty, poorly outlined cytoplasm. (H&E, × 400).

(23%), (17%), (16%), osteosarcoma 가  
 (10%), (9%), , 가 가 3,10)  
 , 가 9), 가  
 , Alder  
 1), Gupta 12  
 4),  
 가  
 1 8), 13 가 5,9)  
 6), , Nakashima 5  
 (mesenchymal chondrosarcoma) 54.6% 10 27.3%  
 (mesenchyme) 가 가 20  
 (round) (spindled) 가 9)  
 1,2,7),  
 (Ewing's sarcoma), 가  
 (primitive neuroectodermal tumor), (small cell)

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## **Mesenchymal Chondrosarcoma of the Calcaneus\***

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Mesenchymal chondrosarcoma is very rare and mostly occurs in lower extremity, especially femur, head and face, and pelvis in order. An eleven-year old male patient suffered from left heel pain for several months and underwent biopsy at another hospital. A Malignant bone tumor was suspected, so the patient was transferred to our hospital. We reviewed the outside pathologic slide, which revealed the diagnosis of mesenchymal chondrosarcoma. It was treated by a below knee amputation. Three months later, a chest computed tomography (CT) revealed multiple metastatic nodules in both lungs. All metastatic nodules were surgically excised and the patient received postoperative chemotherapy. As far as our knowledge, mesenchymal chondrosarcoma in the calcaneus is the first case in the world. Thus, we report a case of mesenchymal chondrosarcoma in the calcaneus with thorough review of documents.

**Key Words:** Mesenchymal chondrosarcoma, Calcaneus

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