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**Fig. 1.** Radiograph shows irregular, osteolytic lesion of the proximal tibia with sclerotic border and destruction of cortex.

(Fig. 5)

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MSTS

(Fig. 6).

15

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75

23 (76%)

(Fig. 7).

(equalization)

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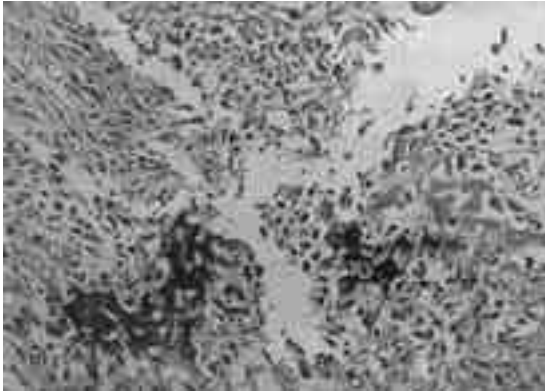
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**Fig. 2.** MR sagittal images. (A) T1-weighted image shows a low signal intensity. (B) T2-weighted image shows a high signal intensity. (C) Postcontrast T1-weighted image shows an intermediate enhancement especially at the peripheral portion.

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**Fig. 3.** Microscopic photograph (× 200, H-E stain) demonstrates a high grade spindle-cell malignancy with only minimal amounts of osseous matrix.

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**Fig. 4.** Postoperative radiographs show the reconstruction with an intercalary fibula allograft and k-wire fixation at the junctional sites of allograft.



**Fig. 5.** Radiograph in 20 months after operation shows the varus deformity at proximal junctional site of allograft.



**Fig. 6.** Radiograph shows the revision with the proximal fibular transfer.



**Fig. 7.** Postoperative radiograph in 51 months after operation shows that there is no leg length discrepancy.

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**Abstract**

**Osteosarcoma in an 8 Month-Old Infant  
treated with Limb Sparing Operation**

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Osteosarcoma is the most common tumor in malignant bone tumors. The peak age incidence in osteosarcoma is between 10 to 14 years of age. This tumor rarely develops under 6 years of age and the youngest patient in the previous literature was a 13 months old girl who had an osteosarcoma involving the second metacarpal bone. We report a case of an 8 month old male infant, who had an osteosarcoma involving the right proximal tibia. This patient was treated by wide excision with transepiphyseal resection and reconstruction with allograft. At 20 months after operation, the varus deformity was developed at the proximal junctional site of allograft. Thereafter, the revision was performed with correction of deformity and augmentation with the proximal fibula transfer. At 51 months after operation, he has been remained as free of disease, and he has recovered the knee motion ranged from 15 degree to 75 degree. The osteosarcoma in infant is very rare but it should be considered the osteosarcoma in the differential diagnosis of any bone lesion. Instead of amputation, the limb sparing operation and the solutions for limb length inequity in growing period should be carefully considered in the infantile osteosarcoma.

**Key Words:** Osteosarcoma, Infant, Limb sparing operation

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