

Extremity Osteosarcoma—A Southeast Asian Experience

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Abstract

Introduction: We present our experience with limb salvage emphasising the use of vascularised bone grafts in combination with autoclaved tumour bone for limb salvage in osteosarcoma. **Materials and Methods:** Thirty-six cases with extremity osteosarcoma, all of which were managed at a single institution between 1980 and 1999, were reviewed at a mean follow-up of 9 years (range, 10 months to 200 months). There were 26 patients who underwent limb salvage surgery and 10 patients who had amputation. **Results:** In the limb salvage group, 12 bone defects were bridged using vascularised bone grafts alone while autoclaved tumour bone was used for reconstruction in the remaining 14 patients. In these 14, there were 10 with autoclaved tumour bone and vascularised bone, 2 with autoclaved bone and non-vascularised bone and 2 with autoclaved bone alone. The joint was preserved in 13 of the 26 reconstructions. Of these, 11 involved preservation of the knee joint contributing to a quantum gain in function with 84% good and excellent results. The actuarial survival was 64% at 2 years and 48% at 5 years, with no significant difference between ablation and limb salvage. **Conclusion:** The use of the autoclaved bone provided yet another effective alternative for bridging large defects following resection of high grade tumours.

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Key words: Autoclaved bone, Biological reconstruction, Functional outcome, Vascularised fibular grafts

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