

**INTRODUCTION
AND
AIM OF THE WORK**

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The incidence of primary bone tumours, excluding the leukemias and lymphomas, shows that they constitute the most important single group of tumours in patients under the age of 20 years (Aegerter and Kirkpatrick, 1968).

In the past, an ablative operation almost routinely meant an amputation, sometimes of the radical type, that has been called "hindquarter or forequarter amputation". In recent years, however, the significant advances in pathology, radiology, chemotherapy, radiotherapy and surgical and biomechanical techniques have contributed to a better understanding of these diseases, and have provided the necessary techniques to achieve local tumour control without amputation (Eilber et al., 1984).

Magnetic resonance imaging has brought along the clinical promise of being more precise than the other diagnostic modalities, such as radiography, computerized tomography and scintigraphy in the definition of the true proximal and distal extents of a tumour in a long bone. Coronal images permit easier planning of the surgical techniques for salvage of a limb, using an allograft than do a multiplicity of transverse images (Sundaram et al., 1986).

Limb salvage is described for patients with osteogenic sarcoma who had resectable lesions. In the very young child, the usual methods of reconstruction are not applicable due to the resulting major leg-length inequality. One solution is to resect the lesion in accordance with good cancer surgery guidelines and then perform a rotationplasty of the Van Nes type. The ankle then functions as a knee joint, and the final result is a below-knee amputation, rather than a high above-knee amputation (Jacobs, 1984).

The aim of the present study is to throw light on the modern diagnostic and therapeutic procedures, which make non-amputative limb salvage possible for many patients with malignant skeletal sarcomas.