

CUSTOM MEGA PROSTHESIS IN BONE TUMOURS
(400 Cases In 10 Years)
(CHALLENGES AND ACHIEVEMENTS IN INDIA)

Dr.Mayil Vahanan Natarajan. M.Ch.Orth.
Head, Orthopaedic Oncology Service
Regional Cancer Institute and
Apollo Cancer Hospital
Madras, INDIA.

INTRODUCTION

Orthopaedic Oncology has been well established as a subspeciality in Orthopaedic surgery on the threshold of the new millennium of the 21st Century. Management of patients with musculo-skeletal neoplasms has been one of the most challenging areas in Oncology. The hallmark of Orthopaedic Oncology is limb Salvage Surgery. Custom Orthopaedic implants is an exciting and expanding area in Orthopaedic reconstruction. It is mainly used in Limb Salvage Surgery following tumour resection. This study analysis my experience with Custom Mega Prosthesis in Bone Tumour from Madras, India.

CLINICAL MATERIAL

The period of the study is 10 years from October 1988 to March 1999. There were 236 males and 164 females. The average age were 25.5 years. Histopathologically there were 233 Osteosarcomas, 89 Giant Cell Tumours, 24 Chondrosarcomas, 16 Metastases, 10 Malignant Fibrous Histiocytoma in this series. Anatomically 163 were in the Distal Femur, 119 in Proximal Tibia, 37 in Proximal Humerus, 34 in Proximal Femur, 10 in Shaft of Femur, 6 Shaft of Humerus. Staging was 2(23), 3(69), I A(11), IB (38) II A(98) II B 123, III A (1), III B (6). The Margins of Resection were wide in 289, Marginal 107 and Contaminated 4. The Custom Prosthesis were made in Madras locally. The materials used for prosthesis was Stainless steel or Titanium. The knee joint is the rotating hinge type based on the Stanmore pattern. The proximal humerus is the Campanacci shoulder type of prosthesis. The period of follow up is from 6 to 125 months with a mean of 34 months.

RESULTS

The functional results (ISOLS) were Excellent 154 (40%) Good 135 (35%) Poor 50 (13%) and Fair in 45 (12%). Oncological results were No Evidence of Disease 298 (77%) Died of Disease, Alive With Disease 23 (6%) and Other Causes 4 (1%) The complications were Biological 15%, Mechanical 19% and Oncological in 17%.

DISCUSSION

Custom Prosthesis in Limb Salvage Surgery is still in infancy India due to developing technology for fabrication and high cost. Only a small percentage of patients undergo this type of surgery. Several cases present late and end up with amputation. This paper is an analysis of my results in 400 cases from the city of Madras with a follow up of 10 years.