

Treatment of Primary Malignant Bone Tumors of the Scapula

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Primary malignant bone tumors of the scapula are very rare, and little literature is available regarding their characteristics and outcome. We studied the clinical characteristics, and outcome of patients with primary malignant bone tumors of the scapula. From 1979 to 2008, we treated 7 patients at our institute (4 men and 3 women; chondrosarcoma 3, Ewing's sarcomas 3, Osteosarcoma 1). The mean age was 45 years (range, 5~65 years). The follow-up period was 2 - 180 months. Six patients were performed operations: total scapulectomy 3, partial scapulectomy 1, forequarter resection 1, total resection of the shoulder girdle (Tikhoff-Linberg procedure) 1. No-operative treatment was chosen for one patient with a limited life expectancy. Local recurrence occurred in one patient. Distant metastasis occurred in 3 patients. Of the 7 patients, 4 patients are died because of propagation of the disease. Three patients were alive and apparently disease-free, and these patients were evaluated for functional results with the functional evaluation system of the International Society of Limb Salvage (ISOLAS). Functional result of partial scapulectomy was excellent, however, the function after total scapulectomy or Tikhoff-Linberg procedure is severely impaired. Our study indicates reconstruction procedure needs to be reconsidered following total scapulectomy or Tikhoff-Linberg procedure.