

MANAGEMENT OF SOFT TISSUE SARCOMA OF LOWER LIMB – 2 CASE REPORTS AND REVIEW OF THE LITERATURE

Tai-Sheng Tan¹, Hui-Ling Yeh², Jian-Sheng Jan²

Department of Orthopedic Surgery¹, Department of Radiation Oncology², Taichung Veteran General Hospital

Two cases of lower limb soft tissue sarcoma, one malignant fibrous histiocytoma and one liposarcoma, were treated by surgery and a postoperative high dose rate of interstitial brachytherapy with and without external beam irradiation in Taichung Veteran General Hospital. Both cases were advanced stage and high grade in histology at presentation and had a high concern for leg preservation. Conservative surgical treatments were performed by wide excision and marginal excision, respectively. The interstitial catheters were implanted with 1-cm spacing in a parallel array intra-operatively. High dose rate brachytherapy was planned by Plato Brachytherapy Planning System and was started 4 days after the operation by the application of the microselection afterloader using iridium-192 as the irradiation source. The total doses were 2880cGy and 2800cGy respectively and were applied in 8 and 7 fractions respectively twice a day for 4 days. External irradiation with 4000cGy in 20 fractions was given to one case but was withheld in the second case due to delayed wound healing after brachytherapy. There were no significant wound complications in the first case. There was also no bone fracture or peripheral nerve damage in either case except muscle fibrosis occurred after the irradiation. Both of the patients were satisfied with the function of the preserved limbs during a follow up one year later. No local recurrence or distant metastasis was seen at present. For advanced lower limbs soft tissue sarcoma, wide excision plus interstitial brachytherapy may be an alternative management for the preservation of the limbs. Though we had a good initial local control of these two cases but it does not indicate there will be a good prognosis later on. However it did improve the patient's quality of life and their self-confidence in facing the disease. Further long-term follow-up is necessary and hopefully there will be good long-term survival in the future.

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Key words: Soft tissue sarcoma, Interstitial brachytherapy, Limb-salvage therapy

INTRODUCTION

Soft tissue sarcomas constitute a rare group of malignancies arising from connective tissue, with 7800 new cases identified annually in the United States of America. The male to female

ratio is about 1.1: 1.0 with slight male predominance. This kind of disease has a bimodal peak age of incidence of 60 years for adults and 11 % in those younger than 20 years of age. Environmental toxins such as phenoxy acetic acid, thorotrast, arsebic and vinyl choride etc.,

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Address reprint request to: Tai-Sheng Tan, M.D., Department of Orthopedic Surgery, Taichung Veteran General Hospital, No. 160, Chung -Gung Road, Sec. 3, Taichung 407, Taiwan.