



The Role of Radiotherapy for Aggressive Fibromatosis

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Background

Aggressive fibromatosis is a benign mesenchymal tissue proliferation. Surgery is the preferred treatment but the infiltrative nature of this disease predisposes to local recurrences if wide margins are not obtained. Repeat surgery may be morbid and risk further recurrences and in these cases, alternative approaches should be considered. Radiotherapy (RT) is an option and single institution series have shown benefit of radiotherapy in terms of local control. Radiotherapy may also be considered as adjuvant treatment for patients with high risk of local failure after surgery, particularly in surgically challenging anatomical areas.

Materials and Method

A retrospective review of all patients with fibromatosis, treated with conformal RT, seen at The Christie Sarcoma Clinic from 2000 to 2009 was performed. Data on patient characteristics, tumour site, RT and clinical outcomes was extracted.

Results

Forty-five patients with fibromatosis were identified. Eleven patients (six females and five males) received RT. Age range was 19–70 years. Tumour sites were upper limb girdle (4), head and neck (2), chest wall (2), lower limb (1), flank (1) and intra-thoracic (1). Primary treatment was RT in four inoperable cases and surgery in seven. Of these seven, three received adjuvant RT for high risk disease and four received RT for subsequent disease progression. Doses ranged from 45-56 Gy in 25-28 fractions (mean dose 47 Gy). Two patients were treated in an EORTC phase II study. Median follow up was 30 months (range 1-99 months). The 3 patients who had adjuvant RT were disease free at last follow up (median follow up 51 months). Of the remaining 8 who had progressive disease at the time of RT, 5 had continued response to treatment or stable disease with no additional systemic treatment. Three had progressive disease (2 outside the RT field) at 10, 21 and 48 months after radiotherapy. Two required further systemic treatment and one stabilised without intervention.

Conclusion

The small numbers in this study reflect the rarity of this disease, so it is best managed within the multi-disciplinary soft tissue sarcoma team. Conformal RT may be a valuable option for inoperable symptomatic disease or in relapsed cases, particularly in anatomically constrained areas, where further surgery risks causing considerable morbidity with limited chances of obtaining wide margins. Adjuvant radiotherapy merits further research.