

Fig. E-1A

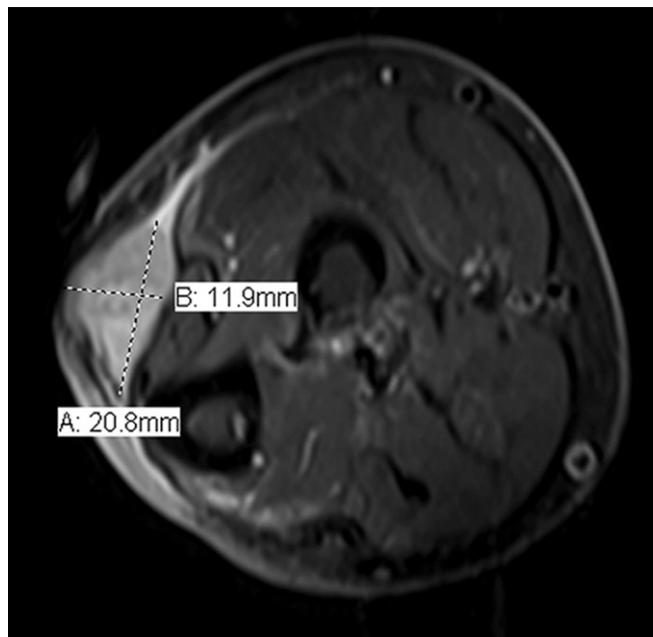


Fig. E-1B

Figs. E-1A and E-1B A sixty-eight-year-old woman who underwent an unplanned excision of a grade 3 (high-grade) pleomorphic myxofibrosarcoma of the right forearm at an outside institution. She received four cycles of neoadjuvant chemotherapy (Adriamycin [doxorubicin] and ifosfamide), followed by tumor bed excision and brachytherapy. At the two-year follow-up evaluation, there was a local recurrence. **Fig. E-1A** Axial T2-weighted image acquired after the unplanned excision showing an area of hyperintense signal involving the subcutaneous tissue around the ulnar side of the forearm. **Fig. E-1B** Axial T2-weighted image acquired two years after the unplanned excision, showing a heterogeneous soft-tissue mass measuring 20.8×11.9 mm. A biopsy was performed, and the result was consistent with recurrent pleomorphic myxofibrosarcoma.

TABLE E-1 Articles Dealing with the Types of Treatments for Patients Who Had Unplanned Excision of a Soft-Tissue Sarcoma

Study	Treatment*	Level of Evidence	Comments†
Lewis et al. ²⁴ (2000)	TBE	II	Repeat resection was found to be a predictor of improved disease-free survival in comparison with primary excision of an STS
Potter et al. ⁹ (2008)	TBE and RT	II	Unplanned excisions resulted in (1) increased rates of local recurrence; (2) residual disease at reexcision, which predicted the likelihood of local recurrence; and (3) evidence that radiotherapy did not protect against local recurrence within the unplanned excision cohort
Arai et al. ⁴¹ (2010)	TBE	III	Unplanned excisions showed similar results to planned excisions in terms of OS, MFS, and LRFS rates. Additional soft-tissue reconstruction was more often needed in patients with unplanned excisions
Han et al. ³⁸ (2011)	TBE	III	There was no difference in disease-specific survival or local recurrence according to the time until definitive surgery (cutoff time of 32 days)
Lin et al. ⁴² (2002)	TBE and RT	III	Reexcision to achieve microscopically negative surgical margins is an effective method of achieving a high rate of local control in appropriately selected patients who present after unplanned excision of the primary tumor. Radiation did not improve local control after reexcision with negative margins
Morii et al. ³⁶ (2008)	TBE	III	Patients with additional wide resection compared with nonadditional wide resection had improved oncological outcomes (5-yr LRFS, MFS, EFS, and total survival rate)
Jones et al. ⁴⁴ (2014)	RT and TBE	IV	Residual tumor after preoperative radiotherapy and TBE was 39% and the 5-yr LC and recurrence-free survival were 95% and 86%, respectively. Perioperative morbidity occurred in 25% of patients
Kepka et al. ⁸ (2005)	RT	IV	5-yr LC, DFS, and OS rates were 22%, 10%, and 14%, respectively, for patients who received doses of <63 Gy compared with 60%, 36%, and 52%, respectively, for patients who received doses of ≥63 Gy. Major radiotherapy complications were noted in 14% of patients; these complications occurred in 27% of patients who received doses of ≥68 Gy compared with 8% of patients treated with doses of <68 Gy
Manoso et al. ⁴³ (2006)	TBE and RT	IV	The local recurrence rate was 57% for patients with a prior outside procedure (8/14), while patients with no prior surgery had a rate of 14% (1/7). Radiation did not compensate for positive margins nor did it reduce recurrence after negative margins
Sugiura et al. ³² (2002)	TBE	IV	8.8% (4) of 45 patients had local recurrences that required a second resection and had no evidence of disease at latest follow-up. The overall 5-yr survival rate was 93%, and the overall 5-yr disease-free rate was 84%. Tumors treated adequately by wide resection in an additional operation appear to have results as good as tumors treated with a primary wide resection
Venkatesan et al. ¹⁰ (2012)	TBE	IV	Repeat resection was done in 40 patients to achieve clear margins, with residual tumor in 74%. Limb-salvage surgery was not possible in 5 patients
Khatri et al. ³⁷ (2005)	TBE and RT	V	For patients seen after prior excision in whom margins are uncertain or positive, they recommend reexcision whenever feasible followed by postop. radiotherapy (60-65 Gy)

*TBE = tumor bed excision, and RT = radiation therapy. †STS = soft-tissue sarcoma, LRFS = local recurrence-free survival, MFS = metastasis-free survival, EFS = event-free survival, LC = local control, DFS = disease-free survival, and OS = overall survival.