S-051  RECURRENT OF CHEST WALL TUMORS

Pediatric Surgical Center of Amsterdam, Division of Pediatric Oncology, Emma Children’s Hospital AMC, Academic Medical Center, Amsterdam, The Netherlands

Daniel C. Aronson, Richard C. Heinen, Jan de Kraker

Background: Chest wall tumors [CWT] are rare and consist of various tumor types, arising from either bone of soft tissues. Local recurrence [LR] is usually treated off protocol and literature on its outcome is scarce. Our aim was to analyze the treatment and outcome of the various CWT, with special emphasis to the prognostic factors for LR, and its outcome.

Methods: A retrospective analysis of the authors’ institutional experience was performed.

Results: Ewing sarcoma (n=27), a median age of 11 yrs (range 6 mo-17.5 yrs). None of them had metastatic disease at initial diagnosis. Median follow up was 11.3 yrs (range 1.3-23.5 yrs). Initial therapy consisted of neo-adjuvant chemotherapy in 24/27, followed by local resection in 19, or irradiation in 5 children. 11/19 children were irradiated after resection, 2/5 had local resections after irradiation, and in 3/5 no resection was done. In 3/27 a primary resection was done. In 2 cases followed by chemotherapy. CR was achieved in 14. Recurrence occurred in 13: Local recurrence (LR) in 7. Distant metastasis (DM) in 7, of whom LR + DM in 1. Of the patients with LR, 3/7 were subsequently treated without resection, 3 had radical resections with chemotherapy, and 1 had an incomplete resection and re-resection without outset irradiation afterwards; the child developed DM later on. Of the other patients with DM, 1/7 had primary resection followed by chemotherapy. 3/7 had chemotherapy and resection without further postoperative treatment, and 2/7 had postoperative irradiation. Outcome of the recurrences: DOD in 9/13 (including all 7 patients with LR), and CR in 4/13 The overall survival was 18/27 (67%). Rhabdomyosarcoma (n=10; 7 embryonal, 1 alveolar, 2 subtype unknown) median age 5.5 yrs (range 2-12 yrs), median follow up 1.5 yrs (range 0.6-14.8 yrs). Initial therapy consisted of biopsy and chemotherapy in 7, followed by thoracic wall resection in 4. Two were resected primarily, followed by chemotherapy in 1 and radiation in 1. NED was achieved in 4 pts, 1 showed no tumor response and 2 never had a remission. Recurrence occurred in 3: LR in 1 and both LR/DM in 2. Two had been treated without resection, 1 had primary resection followed by inadequate chemotherapy. DM were not respectable in both. Outcome: 2 DOD, 1 NED. Soft tissue sarcoma (n=9) median age 7.5 yrs (range 0.5-17.5 yrs), median follow up 10.5 yrs (range 0.3-24 yrs). Initial therapy consisted of biopsy and primary resection in 4, followed by radiation in 1. Preoperative radiation was given to 1. One was treated with chemotherapy alone, and 1 with chemo- and radiotherapy. Exact treatment could not be found in 2. NED was achieved in 7 pts (of whom all 5 resected pts), 1 showed no tumor response. Recurrence (MD) occurred in 1 after initial incomplete tumor response. Outcome: DOD. Desmoid tumor (n=5) median age 6.3 yrs (range 2.5-17.5 yrs), median follow up 9.5 yrs (range 4.5-10.6 yrs). Initial therapy consisted of biopsy and primary resection in all, followed by radiation in 1. NED was achieved in all. Recurrence (LR) occurred in 2, both after initial incomplete resection. One had chemotherapy, re-resection (pos. margins) and radiotherapy, the other was re-resected twice (2nd LR) Outcome: NED in both. Miscellaneous: (n=6, 2 malignant teratoma [MT], 1 hemangioepitctoma [HP], 1 malignant fibrous histiocytoma [FH], 1 melanoma [M], 1 unspecified) median age 10.8 yrs (range 1 mo-12 yrs), median follow up 3 yrs (range 2 mo-21 yrs). Only the HP and M were initial resected. Both MT’s were unresectable and showed no tumor response. NED was achieved in 4. Recurrence occurred in 3: LR/DM in 2 (HP/M), both after initial incomplete resection, and DM in 1 (FH). The HP was re-resected twice and treated with chemo- and radiotherapy, the M was resected 4 times, and received chemotherapy, and the FH was treated with chemotherapy. Outcome: 3 DOD.

Conclusions: (1) LR of CWT has a high mortality. (2) Complete resection seems a cornerstone to avoid LR. (3) Neo-adjuvant chemotherapy may increase the likelihood of resectability. (4) "Positive" resection margins should have treatment consequences.