The value of local treatment in patients with primary, disseminated, multifocal Ewing sarcoma (PDMES).

BACKGROUND: The value of local treatment in patients with primary, disseminated, multifocal Ewing sarcoma (PDMES) was investigated. METHODS: We analyzed 120 patients registered into the European Ewing Tumor Working Initiative of National Groups (EURO-E.W.I.N.G. 99) trial at the trial center of Muenster from 1998 to 2006. Median age was 16.2 years. Local treatment of the primary tumor was surgery in 26 of 120 patients, surgery and radiotherapy in 21 patients, and definitive radiotherapy in 40 patients. For treatment of metastases, 6 of 120 patients received surgery; 9 patients, surgery and radiotherapy; and 33 patients, definitive radiotherapy. Forty-seven (39%) patients had local treatment of both the primary tumor and metastases, 41 (34%) patients of either the primary tumor or metastases, and 32 (27%) received no local therapy. RESULTS: Event-free survival (EFS) at 3 years was 0.24 (95% CI, 0.16-0.33). Univariate analyses demonstrated the impact of local therapy given to the primary tumor: 3-year EFS was 0.25 with surgery, 0.47 with surgery and radiotherapy, 0.23 with radiotherapy, and 0.13 when no local therapy was administered (P< .001). Three-year EFS in PDMES was also influenced by the local treatment: surgery, 0.33; surgery and radiotherapy, 0.56; radiotherapy, 0.35; no local therapy, 0.16 (P = .003). Three-year EFS was
0.39 in patients who received local treatment of both primary tumor and PDMES, compared with 0.17 in patients with any local treatment of either primary tumor or PDMES and 0.14 in patients with no local therapy (P < .001). Multivariate analysis showed absence of local treatment to be the major risk factor (HR = 2.21; P = .027; n = 20). CONCLUSIONS: Local therapy of involved sites is important for patients with PDMES and should complement systemic treatment whenever possible.