

## OPTIMAL LENGTH OF PREOPERATIVE CHEMOTHERAPY IN EWING'S SARCOMA.

*G. Delepine, N. Delepine, B. Markowska, S. Alkallaf, J.C. Desbois - H. Mondor University Hospital - Créteil - France, Oncologic Service, Robert Debré Hospital, Paris, France.*

**Purpose** : This study investigated the correlation between surgery timing and long term disease free survival (DFS).

**Methods** : From 01.1977 to 12.1996, 67 patients (45 males, 22 females) (aged from 4 to 35 y, average : 19) with Ewing's sarcoma fulfilled the inclusion criteria : localised tumor at first screening, location of tumor in en bloc resectable bones [maxillar (1), finger (1), rib (5), skull (1), tibia (8), ulna (2), fibula (5), cubitus (1), scapula (3), iliac (13), sup. humerus (5), femur (22)]. The median volume was 215 cm<sup>3</sup>, mean average 110 (31 < 100). Metastatic patients and vertebral locations were excluded. The patients received a multidrug chemotherapy and were systematically operated. They received radiotherapy in case of bad responders and/or marginal surgery. The histologic response was evaluated according to Picci's criteria. The date of local treatment was calculated from biopsy to surgery in weeks.

**Results** : With a median follow up of 59 months (12-168), 34 patients were in first complete remission. Patients operated before the 10<sup>th</sup> week presented a higher chance (DFS 68 %) of first complete remission than patients operated later (DFS 43 %). The difference was significant (p < 0.03). Further analysis showed that the difference is due to bad responders : **late local control is dismal for bad responders.**

**Conclusion** : Local treatment must be done early, especially if clinical and radiological response is incomplete or uncertain. A long preoperative chemotherapy (>10 weeks) increases the risk of metastases in bad responders. These factors should be taken into account when analysing multicentric protocols.