|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Seminoma** | | | **Nonseminoma** | | |
|  | **Relapse group** | | | **Relapse group** | | |
| **Relapse characteristics** | **ER** | **LR(+VLR)** |  | **ER** | **LR(+VLR)** |  |
| **Number pt.** | 288 | 100 |  | 400 | 24 |  |
| **Age at relapse, yrs, median (IQR)** | 38  (32-45) | 39  (34-49) |  | 29  (25-37) | 39  (31-47) |  |
| **Time of relapse**  **Year 0**  **Year 1**  **Year 2**  **Year 3**  **Year 4**  **After 5 years** | 169  119  -  -  -  - | -  -  45  21  17  17 |  | 338  62  -  -  -  - | -  -  8  5  7  4 |  |
| **hCG elevation**  **Yes (%)**  **No (%)** | 33 (11)  255 (89) | 16 (16)  84 (84) |  | 170 (43)  230 (57) | 2 (8)  22(92) |  |
| **AFP elevation**  **Yes (%)**  **No (%)** | 4 (1)  284 (99) | 4 (4)  96 (96) |  | 178 (44)  222 (56) | 6 (25)  18 (75) |  |
| **Relapse biopsy, number**  **Seminoma (%)**  **Nonseminoma (%)**  **-teratoma**  **N/A** | 191  177(93)  6 (3)  1  8 (4) | 87  78 (90)  5 (6)  1  4 (4) |  | 133  8(6)  106(80)  14  19 (14) | 15  5(33)  10(67)  1  0 (0) |  |
| **Relapse stage\***  **IIa (%)**  **IIb (%)**  **IIc (%)**  **IIIa (%)**  **IIIb (%)**  **IS (%)**  **N/A (%)** | 102 (35)  118 (41)  47 (16)  6 (2)  7 (2)  7 (2)  1 (0) | 24 (24)  35 (35)  32 (32)  6 (6)  3 (3)  0 (0)  0 (0) |  | 117 (29)  92 (23)  24 (6)  10 (3)  69 (17)  68 (17)  20 (5) | 3 (13)  7 (29)  7 (29)  0 (0)  6 (25)  1(4)  0 (0) |  |
| **Treatment**  **RT (%)**  **BEP (%)**  **Surgery only (%)** | 198 (69)  88 (31)  2 (1) | 42 (42)  57 (57)  1 (1) |  | 4 (1)  386 (97)  8 (2) | 0 (0)  21 (87)  3 (13) |  |
| **Posttreatment surgery(%)**  **-teratoma** | 11 (4)  1 | 14 (14)  2 |  | 91 (23)  59 | 8 (33)  1 |  |
| **Death of TC:**  **-Progressive disease**  **-Complications \*\*** | 4  3 | 3  2 |  | 9  5 | 0  1 |  |
| **5 year DSS %** | 98.2 | 94.9 |  | 97.0 | 98.2 |  |
| **5 year OS %** | 95.8 | 93.8 |  | 95.2 | 95.8 |  |

Table 2. Patient characteristics at time of relapse.

Patients are grouped according to their primary histology. Abbreviations ER: early relapse, LR(+VLR): late and very late relapses, pt: patients, yrs: years, IQR: inter quartile range, AFP: alpha fetoprotein, hCG: human chorionic gonadotropin, RT: radiotherapy, BEP: bleomycin, etoposide, cisplatin, TC: testicular cancer, DSS: disease specific survival, OS: overall survival. \* See supplemental table 3 for definition of stages \*\* death from complications were due to kidney failure, pulmonary embolism, pulmonary edema, septicemia (4 patients), pneumonia (2 patients),and bleomycin induced pneumonitis (2 patients).