Testicular cancer: clinical features in a retrospective survey analysis of a single institution of Sardinia

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Background: Primary testicular cancer (TC) is the most common solid malignant tumor in men between the ages of 20 and 35 years in Italy. The unusual age distribution shows one peak in incidence in young adults (aged 20-39) and a second peak in over 60. The Italian annual incidence is about 11% in men younger than 50 years. The incidence of TC increased during the last century. The five year survival rate is about 95%. Even in cases of advanced disease, cht offers a cure rate of at least 80%.

Patients and methods: We retrospectively queried all pts diagnosed with TC in our institution from 1998 to 2014. Clinical features and outcome parameters were the primary endpoints. 64 patients with TC were identified. Median age was 33 years (IQR 19-71), 37 seminomas, 19 embryonal carcinoma, 3 teratomas, 1 teratocarcinoma, 1 Leydig cell tumor, 1 mixed form carcinoma; in 38 pts the primary tumor was localized in the right testicle, in 23 pts in the left. The primary tumor was mediastinal and 1 was retroperitoneal. By the AJCC tumor stage classification: 40 pts presented stage I disease, 10 pts stage II, 10 pts stage III, 4 pts stage IV. 18 pts had metastatic sites, 9 abdominal lymphnodes, 1 upper diaphragmatic lymphnode, 5 lungs and 1 liver; 5 pts with stage I disease received 3 cycles of adjuvant PEB (Cisplatin-Etoposide-Bleomycin), 2 pts with seminoma received 1 single dose of carboplatin AUC 7, 35 pts received first line chemotherapy: 32 pts were treated with PEB for 3-4 cycles, 1 with PVB (Cisplatin-Vinblastine-Bleomycin), 2 with carboplatin AUC 7.

Results: The overall response rate (RR) was 91.3%. CC remission was achieved in 24 pts, PR in 8 (22,8%) pts, 1 pt died due to toxicity related to the treatment (neutropenic sepsis), and 1 pt showed PD under treatment; 6 pts received second line chemotherapy, 3 ICE (ifosfamide, carboplatin, etoposide), 2 TIP (paclitaxel, ifosfamide, cisplatinum), 1 PEI (cisplatin, etoposide, ifosfamide). After a median follow up of 63 month (IQR 12-204), 93,7% were alive and disease free, 4,6% died due to disease progression. All the patients with stage I and II disease didn’t relapse. The patients who died were 2 on stage III and 2 on stage IV.

Conclusions: Testicular cancer is increasing in incidence in many countries; however, mortality rates remain low and most men are cured. Our study confirm the excellent prognosis among all tumor stages with an extremely low rate of disease progressions and deaths which are limited to advanced stages.