ID 71 - Organ sparing surgery: is the conservative management an option in Stage I testicular tumors?

[1] Emanuela Trenti, [1] Salvatore Mario Palermo, [1] Carolina D´Elia, [1,5] Evi Comploj, [2]Esther Hanspeter, [3] Susanne Baier, [4] Justina Waskjewicz J, [4] Martin Maffei, [1,6] Armin Pycha

[1] Department of Urology, Central Hospital of Bolzano, Bolzano, Italy – [2] Department of Pathology, Central Hospital of Bolzano, Bolzano, Italy – [3] Department of Oncology, Central Hospital of Bolzano, Bolzano, Italy – [4] Department of Radiotherapy, Central Hospital of Bolzano, Bolzano, Italy – [5] Department of Research, College of Health Care Professions, Claudiana, Bolzano – [6] Sigmund Freud Private University, Medical School, Vienna, Austria

OBJECTIVES

Testicular cancer represents 1% of male neoplasms and 5% of all urological tumors. Despite its relative low incidence and lack of data, the survival rate is very high, due to its high chemo-sensitivity and to the increasing number of early detection with ultrasound in the last years. Nevertheless the current management is not changed and the guidelines suggest to perform an orchiectomy, if a malignant tumor is found on frozen sections, without distinction about the tumor-size.
We present the oncological results of a series of 22 testicular tumors treated with testis sparing surgery (TSS) with the aim to assess the safety of this procedure in selected cases.

METHODS

Between 2005 and 2018, 21 TSS were performed at our department. Four patients were monorchid and 1 had a bilateral testicular cancer. The age ranged from 14 to 83 years (mean 38.4).
Tumor markers were assessed preoperative in all patients. All patients underwent inguinal access to the testis; frozen-sections were request during the operation, associated, in case of TSS, with biopsies of the surrounding tissue. A staging computed tomography was performed after the surgery in all cases.

RESULTS

Tumor markers were negative in all patients except 3, where they were only mildly elevated. Frozen sections showed a stromal tumor in 10 patients and a germ-cell tumor (GCT) in the other 11 cases. All lesions were intraparenchimal, simply to resect and tumor size ranged from 7 to 40 mm (mean 14.2 mm). The definitive histology confirmed the results of frozen sections in all cases.
None of the 10 patients with stromal tumors showed histopathological risk-factors and none showed relapse after a mean follow up of 48 months (range 18-108).
Of the 11 cases of GCT, in 6 cases TSS was performed, due to solitary testis or synchronous bilateral tumor: in 5 of them a germ-cell neoplasia in situ (GCNIS) was found in the definitive histology and 3 of these patients underwent radiotherapy (RT) while the other 2 underwent active surveillance. The other 5 patients underwent elective TSS; in 1 of these patients an orchiectomy was performed, for concomitant GCNIS in the definitve histology, because a RT could damage the contralateral healthy testis. All these patients underwent regular follow-up (range 3-120; mean 36 months); only 1 monorchid patient (9%), under active surveillance for GCNIS, had relapse after 20 months and was treated with repeated TSS and RT. In 1 patient an orhiectomy for endocrine insufficiency was performed after 98 months, without finding a relapse. Only this patient and another one (18%) needed hormonal replacement therapy.

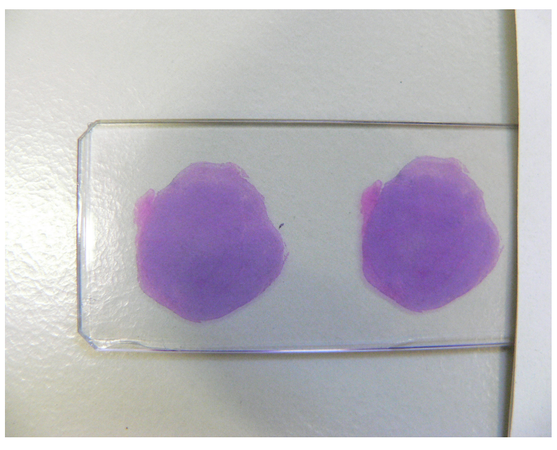
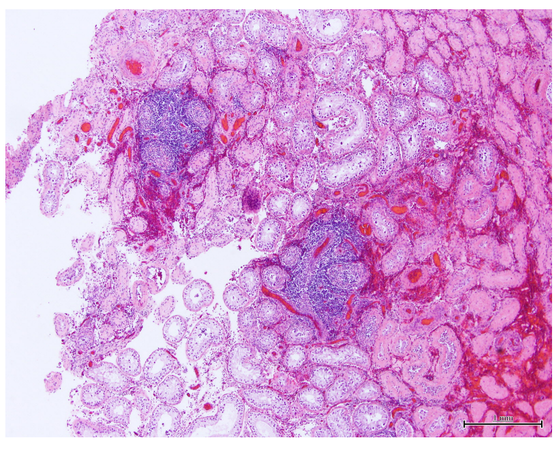
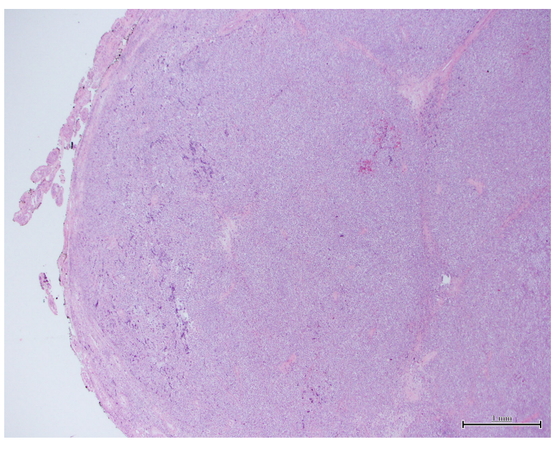


Photo of a Histological section of a seminom

Hematoxylin and Eosin staining of the tumor bed and GCNIS 4x magnification

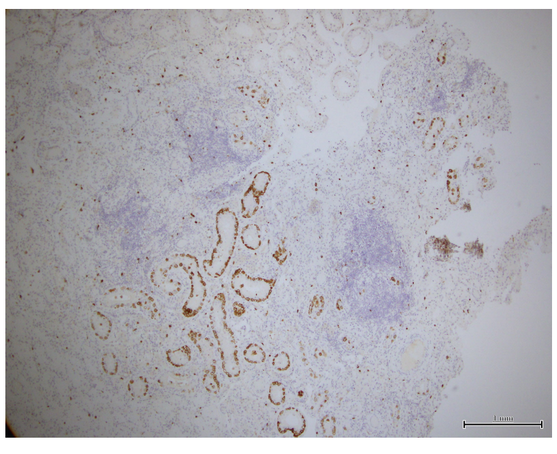


Number of patients	11	GCNIS	RT	Relapse	Hormonal Therapy
Imperative TSS	6	5	3	1 (TSS)	2
Elective TSS	5	1 (orchiectomy)	0	0	0



Hematoxylin and Eosin staining of a Seminom, 2x magnification

Staining of GCNIS with antibody CD 117



CONCLUSIONS

in selected cases, after adequate patient information, a TSS can be offered without compromising the oncological safety, even in case of a normal contralateral testis, to avoid a possible overtreatment and to attempt to preserve the endocrine functions and fertility. A delayed radical orchiectomy or RT could be offered to prevent recurrence in presence of GCNIS.

REFERENCES

Albers P, Albrecht W, Algaba F et al. EAU Guidelines on Testicular Cancer. Limited Update March 2018
Uzun H, Ogullar S, Sehitoglu I et al. Testis sparing surgery in a case of small unilateral testicular cancer. Turkish Journal of Urology 2013; 39 (4): 270-3
Heidenreich A, Weissbach L, Hoeltl W et al. Organ sparing surgery for malignant germ cell tumor of the testis. J Urol 2001; 166: 2161-5
Giannarini G, Dieckmann KP, Albers P et al. Organ-sparing surgery for adult testicular tumors: a systematic review of the literature. Eur Urol 2010; 57: 780-90