

Case Report

Metachronous Testicular Tumor and the Importance of Monitoring: Report of a Case

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Abstract

Testicular cancer represents 1 to 1.5% of male tumors, bilateral testicular neoplasia is uncommon, and can be synchronous or metachronous. Currently the improvements in the methods of study and treatment, it has allowed a timely diagnosis and reduction of morbidity and mortality in these cases.

It presents the case of a patient of 37 year old, with antecedent of primary testicular tumor with surgical treatment, without evidences of residue tumoral, that 10 years later he presented testicular cancer contralateral. It is discussed the importance of a strict follow-up in men with testicular tumors, associated to the diagnostics methods and the treatment of these patients.

ABBREVIATIONS

AFP: Alfa-FetoProtein; b-hCG: Beta Human Chorionic Gonadotropin; LDH: Lactate Dehydrogenase. CT: Computerized Tomography.

INTRODUCTION

Testicular cancer is an infrequent neoplasia, represents 2 to 3% of genitourinary tumors and only 1 - 1.5% of male cancer [1,2]. Bilateral presentation is rare, the reported rate of 0.8 for every 1,000,000 men between 15 and 40 years. Those testicular tumors 0.5% are synchronous and 2 to 3% are metachronous [3].

Several risk factors have been associated with the emergence of testicular cancer, such as infertility, cryptorchidism, testicular atrophy and familial predisposition [2]. However, the most important factor is the personal history of testicular cancer, which increases the risk to develop a contralateral tumor in 35 times [4].

The 90% cases of testicular cancer originates in germ cells, which according their histological features are divided into: Seminomas and Nonseminomas, each represents approximately 50% of the prevalence [5]. When present bilateral testicular tumors, the most prevalent histology for the synchronous is the bilateral seminoma, instead of metachronous predominates the discordant histology [6].

The form of classical presentation is like a painless mass testicular, by which the main diagnostics methods are the self-examination and ultrasound testicular, study that allows detect

a testicular tumor with a sensitivity close to the 100% [7,8]. Also these neoplasias associate to markers tumorales that help in the diagnose and follow-up, these are the AFP and b-hCG, these markers guide the histology type, in the nonseminomas near the 70% expressed AFP and 60% increase b-hCG, to difference of the seminomas that only the 30% elevated b-hCG, but never AFP [2,9].

Is presents case of a man of 37 years with antecedent of left testicular tumor, that after 10 years he presented right testicular tumor, diagnosed and treated in the "Hospital San Juan de Dios", Curicó, Chile. The interest of presenting this case is justified by the low incidence of metachronous bilateral testicular tumors, stressing the need of attention and vigilance in men with a history of unilateral testicular cancer, because of the high risk of develop a contralateral neoplasia and thereby adopt therapeutic measures, as well as keep the reproduction possibility through the gametes preservation in men without offspring.

CASE PRESENTATION

A 37 years old man, white race, with history of left orchidectomy and retroperitoneal lymphadenectomy 10 years ago by testicular tumor with mixed germ cell cancer histology: seminoma in a 90% and teratoma in a 10%, with negative histological edges, in clinical stage IA. Instance in which he presented a LDH discrete elevation which normalized after surgery. After that, he continued with strict follow-up biannual the first 5 years, then yearly with markers tumorales and images of thorax, abdomen and pelvis.

After 10 years of follow-up, the patient consults by increase of right testicular volume painless. To the physical examination feels mass of roughly 2 cm, with left scrotal bag empty. Study started with markers tumorales, stand out AFP at 3.4 ng/ml and b-hCG in 0,673 mUI/ml, LDH 300 IU/l, is complemented with testicular ultrasound in which is observes right teste very situated of usual size, with partial replacement of his parenchyma by hypoeogenic nodular multifocal injury well delimited (Figure 1). By this finding and history of the patient, decided surgical resolution, after gametes cryopreservation, making right radical orchidectomy, demonstrating homogeneous tumor of 2, 5x2, 3x2, 3 cm in central test area with biopsy and immunohistochemical study that informs right seminoma infiltrating well differentiated. He is estadificado with markers tumorales after surgery, B-hCG: 0,223 mUI/ml, AFP: 3,4 ng/l and LDH: 208, together a CT of thorax, abdomen and pelvis without signs of dissemination. It performs adjuvant treatment with radiotherapy to rights lymphnodes for aorticos, iliac and inguinal.

Patient evolved favorably, without clinical manifestations of metastasis, with controls every 4 months with tumoral markers, thorax x-ray and CT of abdomen and pelvis, without the presence of pathological findings to the last control

DISCUSSION

The antecedent of a testicular tumor is the main risk factor for the development of a contralateral tumor, which varies between 1-5% in different series published [10]. In the case of metachronous, the prevalence is approximately 2.5% with an average of apparition of 5 years in half of the cases [11,12]. However when the second tumor is a seminoma, the time of occurrence between tumors can extend to 10 years and even occur at older age, which determines the importance of the follow-up and surveillance of these patients, for early second diagnostic [7]. In the case presented, during 10 years of observation with markers tumorales, thorax x-ray and CT of abdomen and pelvis, only developed a LDH discrete increase in at the time of the first tumor, that normalized after surgery, that oriented the absence of residual disease or metastatic in that period, that changed with discovery a right testicular mass made by the patient, diagnosing

metachronous testicular cancer, so in these patient it is vital their education, since the majority of second tumors are discovered after a self - testicular exam. The follow-up with laboratory tests is considered mandatory [12].

The discussion in the case of unilateral testicular tumor is centered in if it is necessary to make a follow-up with contralateral biopsy, the studies are divided, having those who manifest that the subsequent routine performance to the diagnosis of the first tumor is unnecessary, because the clinical value of is not clear [12]. Instead others recommend the realization of contralateral biopsy in patients with high risk: testicular volume less than 12 ml, cryptorchidism history or poor spermatogenesis [13].

The treatment of the nonseminoma testicular tumor in stage IA and IB consists in a radical orchietomy, with rate of cure close to the 95% by what the adjuvant therapy is controversial, but in case of lymphovascular invasion the relapse can reach the 30%, recommending associate chemotherapy because it reduces them relapses to less than 5%. In the case presented, the surgical margins of the primary tumor were negative without lymphnode compromise, that justifies that it did not adjuvant therapy. The treatment of second tumor is based on the phase and histology, the reported case corresponded to a seminoma in stage IA; it estimated that this type of neoplasia has a cure rate approaching 99% independent of the post-orchietomy therapeutic [13], with a survival at 5 years of 95% [7].

A study carried out with a cohort of 3749 patients belonging to countries low treated by cells germtesticular tumor, indicates that the chemotherapy with Platinum is associated with a lower risk of metachronous testicular cancer between the patients that had in first instance a tumor that it is not seminoma(risk ratio 0,37, 95 % CI 0,18 a 0,72) [14].

When there is a second testicular tumor, gametes cryopreservation should be taken in order to maintain fertility, it is recommended to be performed parallel to the radical orchidectomy [15]. In the case presented it was prior to the surgical procedure.

CONCLUSION

The metachronous bilateral testicular tumors are of low prevalence and can appear many years after the primary, being this antecedent the of greater risk for the development of a second tumor. The strict follow-up of these patients with physical examination and tumoral markers, when these are elevated the existence of a new cancer is almost absolute, by which it must study in detail to perform a diagnosis and treatment timely, which will be determined by its histology and stage, for so achieve a final cure.

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Figure 1 Right testicular ultrasonography.
Right testicle of normal size with suggestive image of testicular tumor.

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