

Non-metastatik saptanan burned-out germ hücreli testis tümörü

Burned-out testicular germ cell tumor determined as non-metastatic: A case report

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Abstract

A rarely seen 'burned-out' testis tumor is defined as the germ cell tumor, characterized by histologic regression and disappearance of the primary testicular tumor lesion without any treatment. Absence of any specific evidence of physical examination makes the diagnosis difficult, and increases the importance of radiological imaging works. A 31-year-old male patient applied to our hospital because of a hardness in the right testis. On the physical examination, there was a suspicious nodule at the upper pole of the right testis whereas the left testicle was normal. A mass was detected in scrotal magnetic resonance with the size of 14 * 11 mm in the right testis. Inguinal orchiectomy was performed and the final pathological diagnosis was concluded as "germ cell tumor showing total regression". Non-metastatic burned-out testicular tumors are limited in number reported in the literature and their diagnoses might be sometimes complicated. In burned -out testicular tumor cases, surgery should be carried out immediately to confirm the diagnosis and for the treatment.

Key Words: Burned-out tumor, Germ cell tumor, Testicular tumor

Özet

Nadiren görülen 'burned-out' testis tümörü, herhangi bir tedavi olmaksızın histolojik gerileme ve primer testis tümörü lezyonun kaybolması ile karakterize germ hücreli tümör olarak tanımlanır. Fizik muayenede hiçbir kanıt olmaması tanı koyulmasını zorlaştırır. Tanı için radyolojik görüntüleme yöntemlerinin önemi artmaktadır. Otuzbir yaşındaki erkek hasta, sağ testiste sertlik nedeniyle hastanemize başvurdu. Fizik muayenede sol testis normal iken, sağ testisin üst kutbunda şüpheli bir nodül vardı. Skrotal manyetik rezonans sağ testiste 14 * 11 mm boyutlu kitle tespit edildi. İnguinal orşiektomi yapıldı ve patolojik tanı " tam regresyon gösteren germ hücreli tümör " olarak rapor edildi. Non-metastatik 'burned-out' testis tümör literatürde sınırlı sayıda bildirilmiştir ve bu tümörün tanısı metastaz olmadığında karmaşık olabilmektedir. 'Burned-out' testis tümörü olgularında, hem tedavi hem tanın doğrulanması için cerrahi biran önce yapılmalıdır.

Anahtar Kelimeler: Burned-out tumor, Germ cell tumor, Testicular tumor

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Introduction

Rarely seen 'burned-out' testis tumor is defined as a germ cell tumor, characterized by histologic regression and disappearance of the primary testicular tumor lesion without any treatment (1). It is mainly diagnosed by identification of the metastatic germ cell tumor histologically since palpable tumor is disappeared in the testis (2). It is suggested that immunological and ischemic causes may play a role in tumor regression (3). Absence of any evidence on physical examination makes the diagnosis difficult, and increases the importance of radiological imaging procedures. It generally presents with metastasis, but seldom cases can present without metastasis.

Non-metastatic burned-out testicular tumor cases are limited in number reported in the literature(4,5,6). In this study, a non-metastatic burned-out testicular tumor case is reported.

Case Report

A 31-year-old male patient applied to our hospital because of a hardness on the right testis. He did not have any history of testicular or scrotal infection, trauma, torsion, and congenital anomaly. On the physical examination, there was a suspicious nodule at the upper pole of the right testis whereas the left testicle was normal. There were no pathological findings in the abdomen and lymph node examination. Biochemical values were within normal ranges. Alpha-fetoprotein (aFP) was detected as 0.8 ng / ml (0,8-1), beta-human chorionic gonadotropin (bHCG) was <1.2 mIU/ml (<1.2) and lactic dehydrogenase (LDH) was 204 U / L (125-220). At scro-

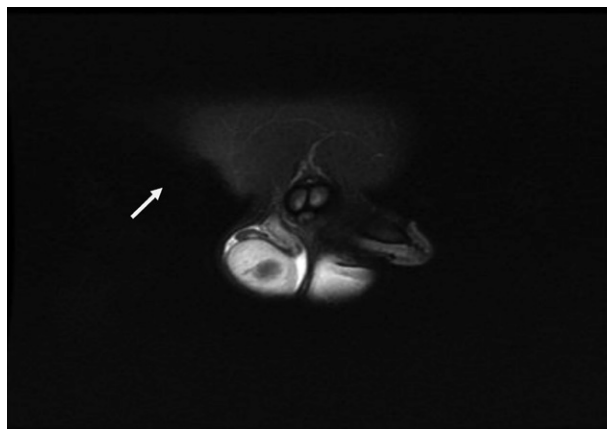


Figure 1: Scrotal MR image, white arrow shows burned-out tumor in the right testis

tal ultrasonography (US) the left testis was normal while there was a hypoechogenic solitary lesion with the size of 16 * 10 mm in the right testis. A mass was detected in scrotal magnetic resonance (MR) with the size of 14 * 11 mm in the right testis (Figure 1), but no metastasis or lymph node retention was observed in the visceral organs in abdominal MR.

The patient underwent right radical orchiectomy. On the histopathological examination, broad hyalinized scar area, calcification around the scar, hemosiderin-loaded macrophages, lymphocytes, ghost tubules were observed. Additionally in a few tubules, some areas were shown to have intratubular germ cell neoplasia suspicion by immunohistochemical PLAP administration. The pathologic evaluation was reported as "germ cell tumor showing total regression" (Figure 2, 3).

On the physical examination of the case, 18 months after the surgery, contralateral testis was normal and there was no relapse or metastasis depending on the disease.

Discussion

Burned-out germ cell tumors were firstly defined by Prym in 1927 (7). In the literature, burned-out tumors are often diagnosed by extragonadal metastasis. In the cases of burned-out testicular tumors, extragonadal metastases appear in the retroperitoneum, mediastinum, liver, lung or lymph nodes (1). In Spain, in a 16-year retrospective study, a total of 17 spontaneously regressed testicular tumors have been reported by four centers where 1.2 million people were followed up (8). In another study conducted in France, in a period of 13 years, five cases of burned-out testicular tumors have been reported (2). There are limited number of reports about the non-metastatic testicular burned-out tumors in the literature (4,5,6). Similarly, the tumor is detected after the spontaneous regression period without metastasis in our case.

For suspected testicular lesions, the first thing to do should be a careful physical examination; testicular tumors usually reveal themselves in the testis as unilateral, indolent, and stiff lesions. However, the cases in which the clinical examination is not sensitive enough such as the spontaneously regressed testicular tumors further increase the importance of radiological imaging studies. US is the first preferred method due to being a non-invasive, easily accessible and relatively inexpensive technique.

US findings of burned-out tumors may vary; echogenic abnormalities and calcifications can be observed in focal areas (4). In our case, hypoechoic solitary lesion was shown as the finding of US. It has been stated that in the presence of atypical or non-characteristic intratesticular sonographic findings, MR might be used for burned-out tumor (9). Computerized tomography may be used for illumination of the lesion in the testis, detection of metastasis, and also for biopsy under its guidance when necessary (4).

In the equivocal testicular lesions, pathological examination of surgical removal material or testicular biopsy may be applied in order to achieve an exact diagnosis. The findings that might be considered as the characteristics of spontaneously regressed testicular germ cell tumor diagnosis are scar, intratubular calcifications, lymphoplasmacytic infiltration, macrophages containing hemosiderin, necrosis, hyaline tubules, psammom bodies, hematoxyphilic bodies, clusters of Leydig cells, seminiferous tubule atrophy and intratubular germ cell neoplasia (8). The most commonly seen finding was reported as a single nodular scar tissue and the most specific finding was defined as an accompanying intratubular germ cell neoplasia (4). In our case, there were scar areas, calcifications around the scar, and hemosiderin-loaded macrophages.

The mass detected in the testis, should be considered as a malignant tumor unless proved otherwise. In a series of 48 cases from Italy, evaluating non-palpable ultrasonic lesions, pathologic diagnosis of malignancy has been reported as high as 75% (10). Therefore, in the equivocal lesions which are palpable or not in the testis, the surgery is the method of choice for both the diagnosis and treatment. In our case radical orchiectomy was carried-out.

Conclusion

Physical examinations of the patients, whose testicular palpations are found as equivocal for malignancy, should be achieved carefully and comprehensively. For doubtful testicular lesions, imaging techniques, such as USG, MR or the others should be applied. Burned-out tumors are rare lesions and their diagnoses might be sometimes complicated. In those cases, to confirm the diagnosis and for the treatment, surgery should be carried out immediately.

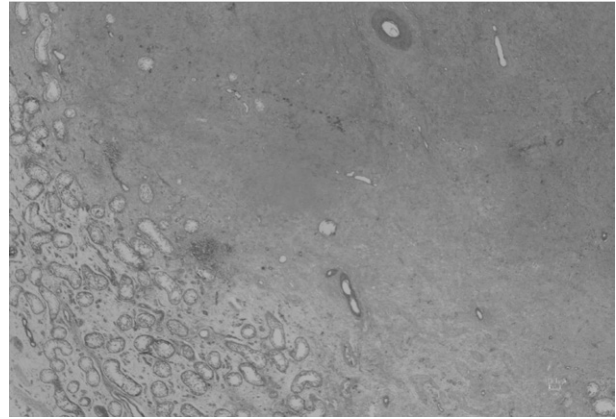


Figure 2: Well-demarcated nodular scar and surrounding atrophic testis

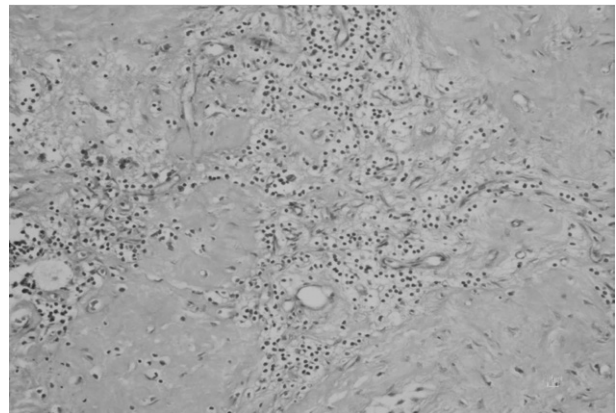


Figure 3: Scar infiltrated by lymphocytes and hemosiderin laden macrophages in some areas.

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