

Short Communication / Kısa Bilimsel Çalışma

Bilaterally diffuse malignant seminoma in a dog

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Summary: In the case, diffuse malignant seminoma was pathologically described in both testicles of 6 years old, male Terrier. Testicles had firmness consistency and multilobullary appearance. On cut sections, a wide brownish-black colored and haemorrhagic area were restricted by gray colored necrotic areas. Microscopically, multiple masses in different size which composed of polihedral shaped neoplastic cells that had vesicular nuclei and basophilic cytoplasm.

Key words: Dog, histopathology, malignant seminoma.

Bir köpekte bilateral diffuz malign seminoma

Özet: Bu olguda, terrier ırkı, 6 yaşlı, erkek bir köpeğin her iki testisinde diffuz malign seminom olgusu tanımlandı. Testisler elastik kıvamlı ve lobuler görünümdeydi. Kesit yüzleri kahverengi-siyah renkte, kanamalı görünümde keskin sınırlı bir alanın çevresinden beyaz yer yer nekrotik görünümüydü. Mikroskopik incelemelerde diffuz dağılımlı, farklı büyüklüklerde, polihedral şekilli, veziküler çekirdekli ve bazofilik sitoplazmalı hücreler arasında çok sayıda mitotik figürle karşılaşıldı. Bu yapılara geniş kanama ile birlikte nekrotik alanların ve lenfosit infiltrasyonlarının eşlik ettiği görüldü.

Anahtar sözcükler: Histopatoloji, köpek, malign seminom.

Testicle tumors are commonly seen on older dog and other species although the tumors in dogs show low frequency (4.6-6%) but seminomas consist of 33% of all tumors of dog (1, 3, 11). Seminomas, sertoli cell tumors and Leydig cell tumors are most encountered among primary testicle tumors according to World Health Organization (WHO) (1, 4, 6, 7, 9). And histologically evaluated mainly in two types (tubular and diffuse type). It is known that cryptorchidism is an important predisposing factor in the tumors. Seminomas get the risk of cryptorchidism rise to 15 fold, though it is increased to 26 fold in sertoli tumors (1, 3, 8). The testicle tumors were reported unilaterally and bilaterally, however, they are often ocured in Right and in Boxer than other breeds (5, 6, 9). In this case, bilaterally diffuse malignant seminoma in a dog has been described.

In present case, both testicle, which submitted to Department of Pathology, Faculty of Veterinary Medicine in Ankara University for diagnosis, were evaluated belong to 6 years old and cryptorchidic male Terrier. Tissues were macroscopically evaluated and fixed in 10% formalin. After fixation, the tissues were processed routinely and embedded in paraffin, cut the 5 µ thickness. the sections were deparaffinized, dehydrated and stained with Hematoxylin-Eosin (HxE). Macroscopically, right testicle was weighed of 317 g, diametered in

11x9x7 cm and left one respectively 64 g and 4x3x4 cm. Both testicles had firmness consistency and lobullary (Figure 1). On their cut sections, a wide brownish-black colored and haemorrhagic area were restricted by gray colored necrotic areas (Figure 2). Microscopically, multiple masses in different size which composed of polihedral shaped neoplastic cells that had vesicular nuclei and basophilic cytoplasm. And also, nuclei of some neoplastic cells contained mitotic figures (Figure 3, 4). In some areas, widely haemorrhagic areas and lymphositic infiltration were seen.

In general, tumors are occurred bilaterally or unilaterally in right testicle in elderly dogs (1, 2, 7, 9). In the case, tumor was seen bilaterally in 6 years old Terrier. On the other hand, cryptorchidism is documented as a predispose factor (1, 3, 5, 8, 10). Cryptorchidism on both testicle was informed from anamnesis alike to documents before. Testicle tumors give rise to feminism, gynecomasti and growing in testicles. Moreover, the tumors can cause to prostatic and haematologic disorders, skin diseases and also perianal tumors (4, 6, 8, 11). In the case, general constitution and condition of the dog are well informed in anamnesis. Seminomas are usually documented in right testicle and can be found in solitary or multiple masses. They generally had pulpy consistency (4, 9, 10). Cut sections can be coincided with

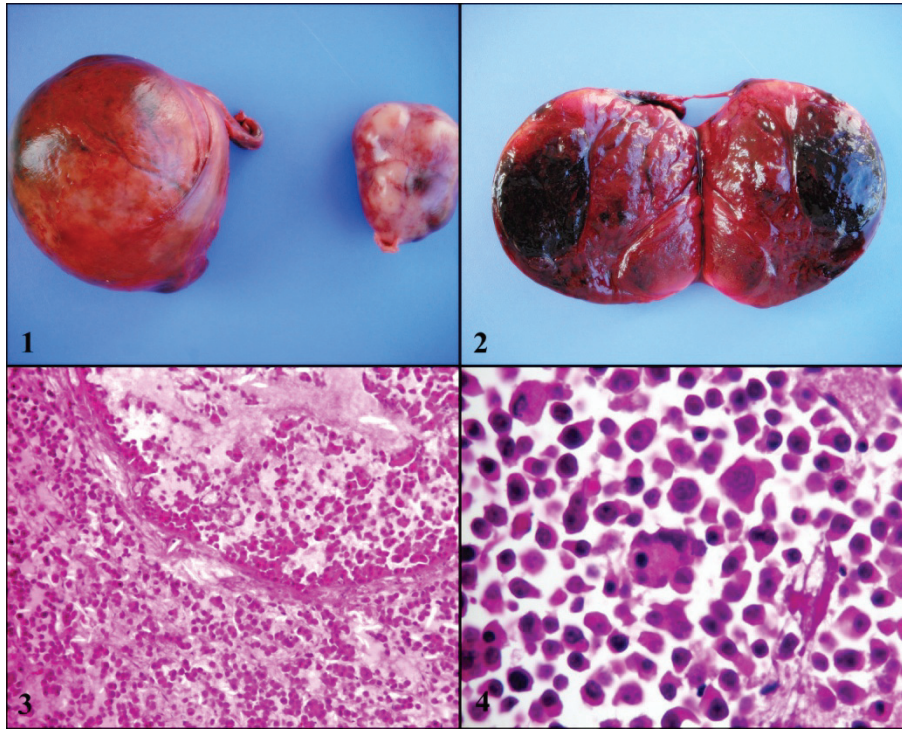


Figure 1. Macroscopical appearance of both testis.

Şekil 1. Her iki testisin makroskopik görünümü.

Figure 2. Cut section of right testis with haemorrhagic and necrotic areas.

Şekil 2. Sağ testisin kesit yüzünde nekroz ve kanamalar.

Figure 3. Neoplastic cells both in tubulus seminiferus and its peripepheral invasion, HxE, x100.

Şekil 3. Tubulus seminiferus ve çevresine neoplazik hücre invazyonları, HxE, x100.

Figure 4. Neoplastic cells with highly pleomorphic features, HxE, x400.

Şekil 4. Pleomorfik özellikler gösteren tümör hücreleri, HxE, x400.

haemorrhagic and necrosis. However, both testicles had firmness consistency and right testicle were overgrowth more than other in the case. Furthermore, both cut section contain some necrotic and haemorrhagic areas. Seminomas is usually benign and had low malignancy (7, 8, 9). On the other hand, it is mentioned that malignant ones metastasize to mostly sublumbar lymph nodes and rarely internal organs (7). However, the dog is still healthy and it is monitorized periodically in radiography with respects to metastasis. It is not reported encountered up to now.

In conclusion, the case is found original in terms of occurring in middle age, diffuse type and showing malignancy despite of being not metastasize to anywhere.

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Geliş tarihi: 21.08.2013 / Kabul tarihi: 31.10.2013

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