



An Uncommon Case in Domestic Rabbit (*Oryctolagus Cuniculus*): Mammary Neoplasm

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Abstract

In this case report, fourteen month aged domestic rabbit housed in faculty was presented to the clinics with solid mass in thoracic mammary gland and abscess in the inguinal one. Unilateral mastectomy was performed after an antibiotic (Enrofloxacin) + anti-inflammatory (Meloxicam) + Tarantula Cubensis extract treatment regimen. Tissue samples were fixed in 10% formaldehyde for routine histopathological processing. Fixed tissue samples were stained with haematoxylin and eosin (H&E) and Mallory's triple staining to show histopathology and examined under a light microscope. Fibroma was diagnosed after histopathological examination. After 6 months no recurrence was observed.

Keywords: Fibroma, histopathology, mammary gland, rabbit

Evcil Tavşanda (*Oryctolagus cuniculus*) Nadir Görülen Bir Olgu: Meme Tümörü

Öz

Bu vaka sunumunda fakültede barındırılan torakal meme lobunda solid kitle ve inguinal meme lobunda apse şikayeti ile kliniğe getirilen 14 aylık evcil bir tavşanda antibiyotik (Enrofloksasin) + anti-enflamatuar (Meloksikam) + Tarantula Cubensis ekstraktı tedaviyi takiben tek taraflı mastektomi uygulanmıştır. Elde edilen dokular rutin histopatolojik incelemeler için %10'luk formaldehit solüsyonunda tespit edilmiştir. Tespit edilen dokular histopatolojik inceleme için Hematoksilen-Eozin (H&E) ve Mallory üçlü boyama ile boyanmış ve ışık mikroskop altında incelenmiştir. İnceleme sonucunda fibrom teşhis edilmiştir. Altı ay sonunda herhangi bir nükse rastlanmamıştır.

Anahtar Kelimeler: Fibrom, histopatoloji, meme bezi, tavşan

Introduction

Nowadays rabbits are getting popular in the pets kept in the house. Although mammary tumours are often in various animal species and human, it is not a common reason for pet owners to bring their pet

rabbit to the veterinarian. As compared with mammary tumours virus induced cutaneous diseases like Shope Fibroma and papilloma are most common in rabbits (1, 2). These cases are

found accidentally by the pet owners. It is reported that mammary tumours are generally seen together with uterine tumours as multiple tumours (3). Evaluation of an uncommon case mammary tumour in domestic rabbit was considered in this case study.

Case History

In this case; a mammary tumour in a 14 month aged domestic rabbit, treatment of mastitis developed in the same mammary chain (necrotic mammary skin) and surgery after treatment and pathological evaluations are presented. Solid mass in thoracic mammary gland and abscess in the inguinal one were detected in the clinical examination of the rabbit. For the treatment of mastitis Enrofloxacin (5 mg/kg sc, Bayartil-K®, Bayer, Türkiye), Meloxicam (0.2 mg/kg sc, Maxicam, Sanovel, Türkiye) were applied for 5 days. Also a Tarantula cubensis extract (0.2 ml sc, Theranekron, İnterhas, Türkiye) weekly for 3 weeks to reduce the size of tumour, supporting the treatment and surgical procedure.

Before every administrations size of the tumour was measured and evaluated with ultrasonography (ESAOTE Pie Medical, 100 Falco, 6-8 Mhz Linear transducer). By the time reduction in the size of the tumour and healing of mastitis were observed. At the start of the treatment size of the tumour was 4.1x5.1 cm, in the second week 3.04x3.01 cm and at last week before the surgery 2.63x2.12 cm. (Figure 1, 2). One week after the last Tarantula cubensis extract administration unilateral mastectomy was performed under general anaesthesia (Xylazine, 5 mg/kg, im, Alfazyne, Ege-Vet, Türkiye + Ketamine, 35 mg/kg, im, Ketasol, İnterhas, Türkiye). Tissue samples were fixed in 10% formaldehyde for routine histopathological processing. Fixed tissue samples were stained with haematoxylin and eosin (H&E) and Mallory's triple staining to show histopathology and examined under a light microscope.



Figure 1: Clinical view of the tumour **a:** start of the treatment, **b:** before the surgery

Şekil 1: Tümörün klinik görünümü **a:** tedavi başlangıcı, **b:** operasyon öncesi

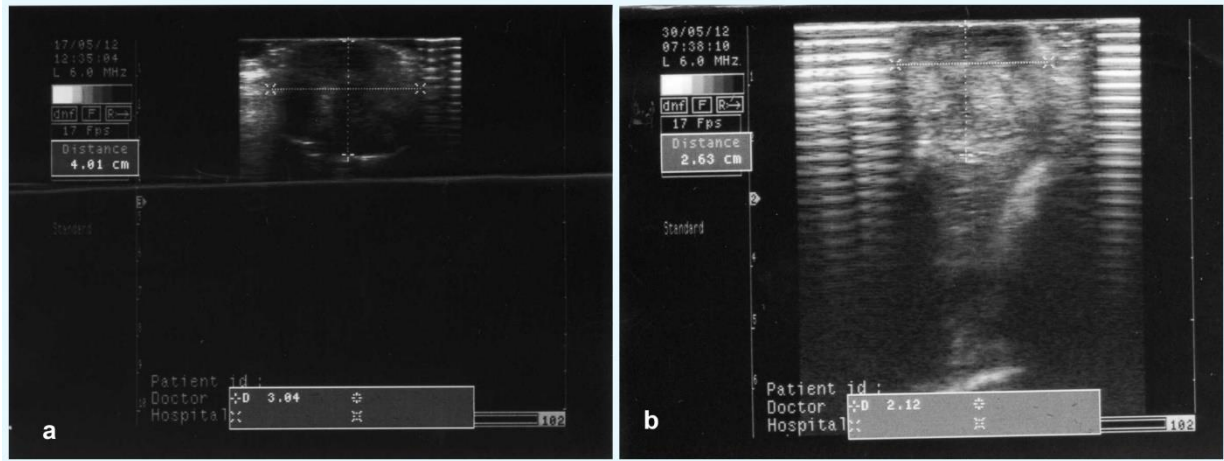


Figure 2: Ultrasonographic image of the tumor **a:** start of the treatment, **b:** before the surgery

Şekil 2: Tümörün ultrasonografik görüntüsü **a:** tedavi başlangıcı, **b:** operasyon öncesi

In the microscopic evaluation (x10, x20, x40), structures rich in randomly distributed collagen fibrils with unclear boundaries were observed under intact mammary skin. There were local inflammatory cell infiltrations in these structures. These infiltrations were consisting of polymorph nuclear leukocytes and little amount of plasmocytes. Also neovascular structures were determined. Main vessels were dilated and intima layer was in its normal constitution (Normal structure of the erythrocytes shows there is not an autolysis in the tissue) It was determined spindle shaped fibroblastic cells were in uniform character. Under these microscopic findings mass found in the mammary gland was determined as solid fibroma (Figure 3). After 6 months no recurrence was observed.

Discussion

Although many chemotherapeutics are used for the treatment of mammary tumours, nowadays surgical removal of the tumour is the most preferred treatment protocol (4). Invasive approach should be preferred for the surgery. A homeopathic agent

Tarantula cubensis extract often used for demarcation, reepithelialization, reducing the inflammation in traumatic and necrotic disorders as well as many infectious diseases (5, 6). Also it is used for the treatment of in mammary tumours in dogs (7). It was reported that *Tarantula cubensis* extract increased the apoptotic mechanism in mammary tumour cells (7, 8). As it was reported by Gültiken and Vural (9) that *Tarantula cubensis* extract stopped the growth and reduced the size of the tumour similar clinical findings were observed in this study.

It was concluded in this case this effect supported the invasive approach to the surgery of fibroma.

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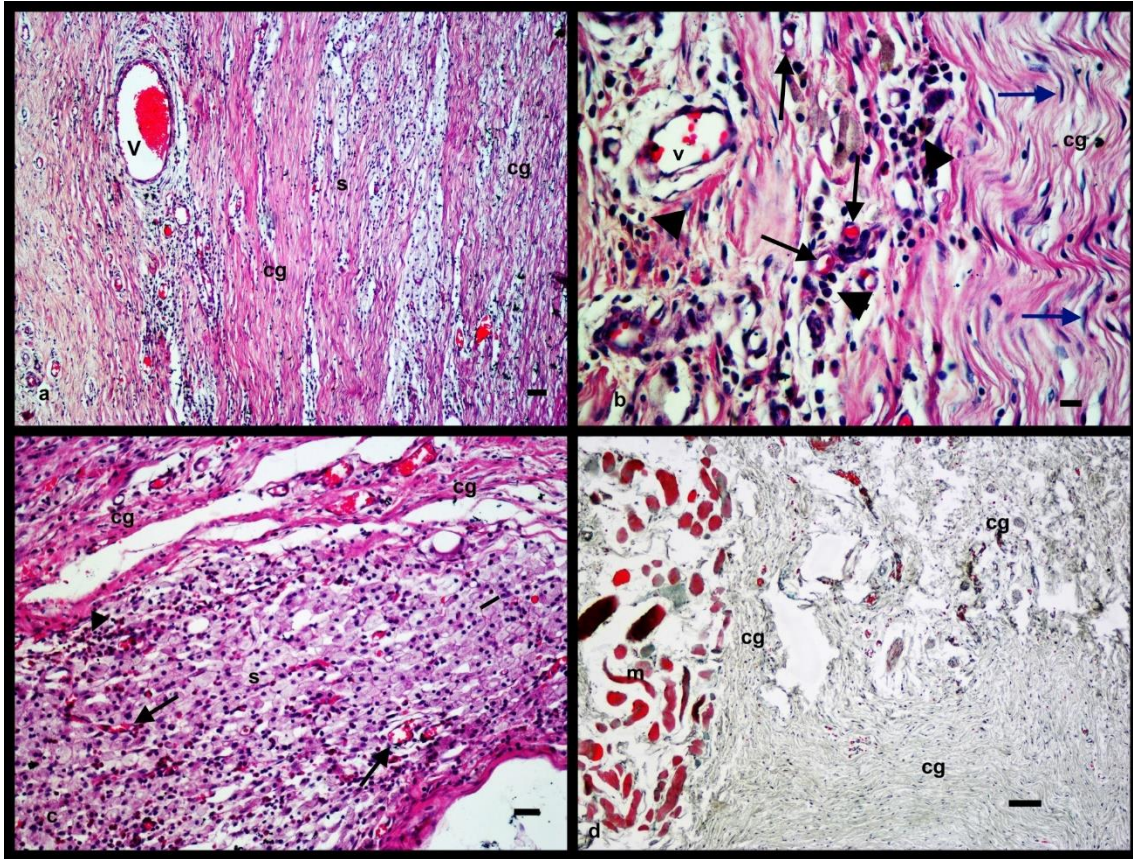


Figure 3: Histopathologic view of the tumour, (a, b, c: H&E, d: Mallory's triple staining), a: (Bar=100µm), b: (Bar=25µm), c: (Bar=50µm); s: stroma, cg: collagen fibrils, v: blood vessel, black arrow: neovascular vessels, blue arrow: fibrocyte, arrow head: polymorphonuclear leukocytes and plasmocyte, d: (Bar=100µm), cg: collagen fibrils, m: smooth muscle

Şekil 3: Tümörün histopatolojik görüntüsü, (a, b, c: H&E, d: Mallory'nin üçlü boyaması), a: (Bar=100µm), b: (Bar=25µm), c: (Bar=50µm), d: (Bar=100µm); s: stroma, cg: kollajen fibriller, v: kan damarı, siyah ok: neovasküler damarlar, mavi ok: fibrosit, ok başı: polimorf nükleer lökositler ve plazmosit, m: düz kas.

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