Bilateral Testicular Seminoma in a Rabbit (*Oryctolagus cuniculus*)



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Abstract

A 10-year-old male mini Lop rabbit (*Oryctolagus cuniculus*) was presented with a 2-month history of progressive enlargement of the hemiscrotal sacs. On palpation, both testicles were enlarged, with the left being larger than the right. A bilateral orchiectomy was performed and the testicular tissue submitted for pathological examination. The histopathological diagnosis of the tissue revealed a right gonadal intratubular seminoma and diffuse seminoma of the left gonad. Although seminomas have been reported in several domestic and wild animals, including rabbits, this is, to the authors' knowledge, the first report of bilateral seminomas with dissimilar structural patterns in rabbits. Copyright 2010 Elsevier Inc. All rights reserved.

Key words: bilateral; mini Lop; rabbit; seminoma; testicle

10-year-old intact, mini Lop male rabbit (Oryctolagus cuniculus) was presented to the Veterinary Teaching Hospital at the University of Évora with a 2-month history of bilateral hemiscrotal sac enlargement. The rabbit was in good overall body condition and weighed 2.3 kg. A formulated pellet mixture (Cuni complete low calorie; Versele-Laga, Deinze, Belgium), fresh vegetables, and water had been provided ad libitum. The animal was vaccinated against myxomatosis and viral hemorrhagic disease, dewormed for nematodes, and was kept as a single pet animal housed in a cage. On clinical examination, the rectal temperature was $37.8^{\circ}C$ (100.4°F) and the only external abnormality noted was a firm bilateral testicular enlargement (Fig 1). Both testicles were enlarged, with the left testicle being larger than the right. Based on clinical findings, a list of differential diagnoses for bilateral hemiscrotal testicular enlargement was developed, including abscessation, neoplasia, chronic or acute orchitis, cystic structures, scrotal hernia, and testicular torsion.

An ultrasonographic examination was performed on both testicles with a high-frequency 7.5-MHz (Esaote Caris plus; Esaote Europe B.V., Maastricht, The Netherlands) transducer to assess the gonadal anatomy and parenchyma. The right testicle had a homogenous echogenicity with a clearly visible central mediastinal testis. Ultrasonographically, there was a complex parenchymal pattern with multifocal hypo-

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Figure 1. Bilateral testicular enlargement with predominance of the left.

echoic and hyperechoic lesions (Fig 2) and one anechoic, cyst-like lesion (Fig 3) in the left testicle. The mediastinal testis was not observed in the left testicle, because no echogenic linear structure was visible in the central portion of the parenchyma. Examination of abdominal organs did not reveal any abnormal lesions.

The inability to observe the mediastinal testis, hyperechoic and hypoechoic lesions in the left testicle, and progressive enlargement of the scrotal sac



Figure 2. Ultrasonographic image of left testicle with mixed echotexture.

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Figure 3. Ultrasonographic image of left testicle with cystic structure.

suggested the presence of a testicular tumor.¹ Although the ultrasonographic appearance of orchitis and testicular torsion can be similar to neoplasia, extratesticular fluid, concurrent enlargement of the epididymis, and spermatic cord changes commonly associated with infection or infarction were not observed in this case.¹ The absence of intestinal loops and large-diameter fluid-filled cavities in the scrotal sac was inconsistent with the diagnoses of scrotal hernia, cysts, and abscess as underlying causes of scrotal enlargement in this patient.¹

A 21-gauge needle was used for ultrasoundguided aspiration of the left testicle to try and obtain a more definitive diagnosis before surgery. Cytology did not reveal neoplastic and/or inflammatory cells; however, an orchiectomy was recommended based on the history, physical examination, and ultrasound examinations, which placed neoplasia at the top of the differential diagnoses list.

The rabbit was anesthetized with a combination of medetomidine (0.2 mg/kg, Domitor; Pfizer Ltd., Porto Salvo, Portugal), ketamine (10 mg/kg, Imalgene 1000; Merial Portuguesa Ltd., Rio de Mouro, Portugal), and butorphanol (0.5 mg/kg, Dolorex; Intervet Portugal Ltd., Agualva-Cacem, Portugal) via subcutaneous administration. Anesthesia was maintained with a mixture of 2% isoflurane (Isoflo; Esteve Pharma, Barcelona, Spain) and a 1.5-L flow of oxygen by facemask connected to a nonrebreathing circuit (T-Ayres circuit). The rabbit was positioned in dorsal recumbency over a heating blanket to minimize heat loss during surgery. While under general anesthesia, a complete oral examination was performed and no abnormalities were found.

An open orchiectomy was performed via a prescrotal approach (right testicle) and a scrotal apDownload English Version:

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