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CASE REPORT

Surgical treatment of transmissible venereal tumor (sticker sarcoma)

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Abstract

Background: Sticker sarcoma, also called venereal sarcoma or venereal lymphosarcomatosis, is a tumor of the external genital organs in females and males. In male animals the penis and foreskin (prepuce) are affected, in the female, it happens in vagina (vagina) and labia (vulva). The diagnosis of sticker sarcoma is based on the chronic discharge, the typical locations and the characteristic appearance of the tumor.

Methods: We have relied on the treatment method on the complete surgical removal of all cancer cells that we can access.

Results: After surgery, we notice recurrent tumors about six months after surgical treatment, indicating the need for other treatments in addition to surgery.

Conclusion: Although spontaneous regressions of sticker sarcoma are documented (with permanent immunity), chemotherapy is the treatment of choice today. Irradiation should also be effective. If the tumor is only removed surgically, there is a high rate of recurrence, and this is what happened with the case that we treated, as the tumor reappeared after less than six months.

Keywords : Canine, sticker sarcoma, surgical treatment, tumor, transmissible venereal tumor

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Introduction

Sticker Sarcoma is a transmissible venereal tumor; the sick dog transmits tumor cells to healthy animals. It is a malignant tumor and is transmitted mainly during sexual intercourse. Tumor cells can also be transferred to different areas of the body by licking, e.g. the mucous membrane of the nose, mouth and anus, but this is rarely the case. The transmissible venereal tumor (TVT) is primarily found in more southern regions, especially in the Mediterranean in dogs with a weakened immune system (Anonymous 2, 2020). Both sexes are affected equally.The tumor cells can spread to other parts of the body (known as metastases) and can be life-threatening for dogs. Metastases are rare, however, and occur only in 5% of cases. Sticker sarcoma is very hemorrhagic and is located on the penis in male dogs and the vaginal vestibule (the outermost part of the vagina) in female dogs. There is no racial predisposition, but Sticker Sarcoma concerns more particularly young sexually active dogs. The female dog is more affected than the male. Stray dogs are more at risk of contracting and transmitting this disease (Anonymous 1, 2020).

Case description

At the institute of veterinary sciences of University of Mentouri Brothers was examined a 2-year-old Husky breed bitch had a vaginal bleeding.

According to the anamnestic data, there was no visible change in its general clinical status, except prepucial sanguineous discharge and snffing and leaking in the genital area. The dog had normal behaveour and apetite, body temperature was 38.0°C, pulse was 78 beats/minute, respiration 18/minute, CRT 1 sec. The consumption of water and diuresis were normal. Ultrasound evaluation of the abdomen did not indicate any changes in the urinary tract; only spontaneous bleeding with blood drops on the preputium was evident. The clinical examination highlighted the presence of neo-nodules bleeding plastics at the level of the vaginal vestibule (Figure 1).

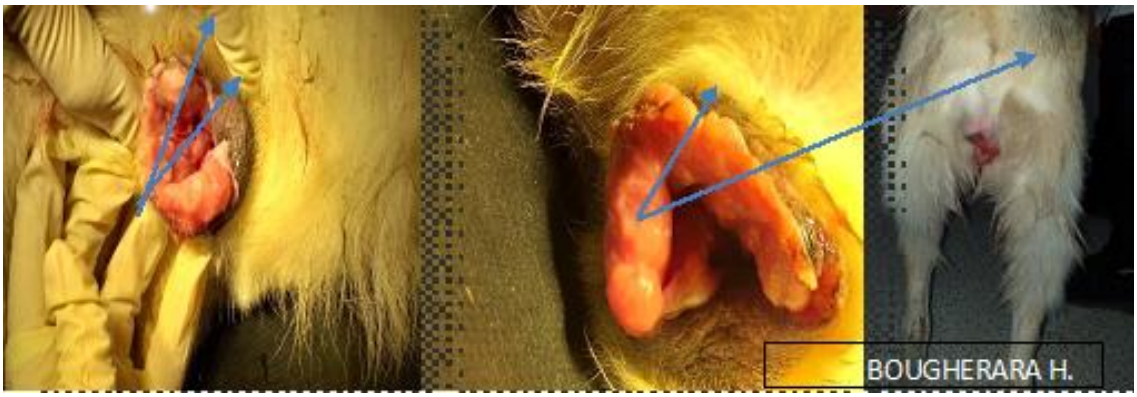

Figure 1: Multiple hyperemic vaginal nodules.

Material and Methods

Surgical procedure:

The instruments used in this technique were the basic instruments of surgery for soft tissue (Figure 2)

Anesthetic protocol:

Premedication:

The animal was premedicated with acepromazine at a rate of 10 mg for each 10 kg of body weight intravenously (Figure 3).

Induction and maintenance of anesthesia:

The induction and maintenance of anesthesia was performed by means of Ketamine at a dose of 10 mg / kg intravenously (Figure 3).

Surgical procedure:

Surgical treatment of transmissible venereal tumor

The surgical treatment was based on complete excision of accessible tumor cells (Figure 4).

Figure 2. Instruments used in VTT surgery

Figure 3. Premedication

Figure 4. Excision of accessible tumor cells

We used cauterization and sometimes ligature to stop bleeding (Figure 5).

Figure 5. The vagina after surgical removal of tumor cells

A histopathological examination was carried out on the fragments of the tissue removed. The results confirmed the presence of the tumor cells of the sticker sarcoma, The complete surgical excision was followed by healing, without recurrence for the next 6 months.

Discussion

Surgery is the treatment of choice for most soft tissue sarcomas (Ettinger, 2003; Ehrhart, 2005; Liptak and Forrest, 2007; Morgane, 2012).

This pursues two opposite objectives: on the one hand, ensuring the best local control by the widest possible excision; on the other hand, guarantee a functional result acceptable to the least aggressive excision (Stoeckle, 2006). Reconciling these two objectives first requires to be able to best estimate the minimum necessary margin of excision.

According to the first studies carried out in veterinary medicine, the rate of local recurrence of STM varies between 25 and 62% after surgical excision (Bostock and Dye, 1980) . The variation depends on the index mitotic, percentage of tumor necrosis and type of treatment (Morgane 2012).

A study in 2008 showed that a less aggressive surgical approach could provide good results for low grade histologic sarcomas involving the extremities (Morgane 2012). Stefanello *et al*. reported that marginal surgical excision (less than 2-3 cm or not including any anatomical barrier), without adjuvant treatment, could be justified for this type of sarcoma. Indeed, these sarcomas are associated with a low rate of local relapse, only 10.8%, even in the case of contaminated margins (Stefanello *et al* 2000). Concerning our case, we noted a beginning of recurrence after 6 months of the surgical excision, knowing that we did not have recourse to another treatment in combination with surgery

A “blind” excision of the STM is also commonly

practiced by veterinarians: in the study by Bacon *et al*., 59% of the subcutaneous masses studied did not have not been biopsied before the first surgery (Bacon et *al* 2007; Morgane 2012). However, despite an incomplete excision identified by pathology, residual tumor cells have actually revealed in only 22% of cases of surgical revision, this which is weaker than in humans. The study reported a rate of local recidivism and metastasis after revision surgery, 15 and 10%, respectively, which is comparable the results obtained by combining surgery and radiotherapy, with undoubtedly less effects undesirable and inexpensive (Bacon et *al* 2007, Morgane, 2012).

Conclusion

Sticker sarcoma is considered a serious disease for dogs, and despite its limited spread in certain regions of the world, it remains a concern for breeders, given its unique mode of transmission. Surgery is considered one of the most important treatment methods followed, which helps to cure the disease, but given the recurrences, the use of chemotherapy and radiotherapy associated with surgery is currently the method of treatment the most effective.

References

1. Anonymous 1. Sarcome de Sticker chez le chien https://catedog.com/chien/03-sante-chien/17-maladies-tumorales-chien/cancer-tumeur-sarcome-de-sticker-chien/ Accessed 28 Aug 2020.
2. Anonymous 2. Sticker-Sarkom.Venerischer transmissibler Tumor (VTT) ,ansteckender Genitaltumor: https://www.tierklinik.de/medizin/andrologie/erkrankungen-des-penis-und-der-vorhaut/venerologie/sticker-sarkom Accessed 28 Aug 2020.
3. Bacon NJ, Dernell WS, Ehrhart N, Powers BE, Withrow SJ. Evaluation of primary re-excision after recent inadequate resection of soft tissue sarcomas in dogs: 41 cases (1999-2004). Journal of American Veterinary Medical Association. 2007; 230(4):548-54.
4. Bostock DE, Dye MT. Prognosis after surgical excision of canine fibrous connective tissue sarcomas. Veterinary Pathology 1980;17(5): 581-8.
5. Ehrhart N. Soft-Tissue Sarcomas in Dogs: A Review. Journal of American Animal Hospital Association. 2005; 41:241-246.
6. Ettinger SN. Principles of treatment for Soft-Tissue Sarcomas in the Dog. Clin ical Techniques in Small Animal Practice. 2003; 18(2): 118-22.
7. Liptak JM, Forrest LJ. Soft Tissue Sarcomas. In Withrow SJ., Vail DM. Withrow & MacEwen's Small Animal Clinical Oncology. 4th ed. St. Louis: Elsevier Saunders, 2007: 425-54.
8. McKnight JA, Mauldin GN, McEntee MC, Meleo KA, Patnaik AK. Radiation treatment for incompletely resected soft-tissue sarcomas in dogs. Journal of American Veterinary Medical Association. 2000; 217(2):205-10.
9. Morgane T, (2012). Prise en charge diagnostique et thérapeutique des sarcomes des tissus mous chez le chien : revue bibliographique. Thèse d'exercice, Ecole Nationale Vétérinaire de Toulouse - ENVT, 2012, 124 p.
10. Stefanello D, Morello E, Roccabianca P, Iussich S, Nassuato C, Martano M, Squassino C, Avallone G, Romussi S, Buracco P. Marginal excision of low-grade spindle cell sarcoma of canine extremities: 35 dogs (1996-2006). Veterinary Surgery; 2008; 37(5):461-5.
11. Stoeckle E. Surgery of limb and trunk wall soft tissue sarcoma. Cancer Radiotherapy. 2006; 10(1-2):34-40.