

NOTAS E INFORMAÇÕES NOTES AND INFORMATION

INTRA-LUMINAL FIBROSARCOMA IN THE CRANIAL VENA CAVA OF A DOG

BENEDICTO WLADEMIR DE MARTIN

Professor Adjunto

Faculdade de Medicina Veterinária e Zootecnia da USP

ADAYR MAFUZ SALIBA

Professor Titular

Faculdade de Medicina Veterinária e Zootecnia da USP

CYLENE ASSIS RODRIGUES

Médica Veterinária

Assistência Médico Veterinária Ltda.

MARIA REGINA BACCARO

Auxiliar de Ensino

Faculdade de Medicina Veterinária e Zootecnia da USP

ÁLVARO ARDUCHI

Médico Veterinário

Assistência Médico Veterinária Ltda.

ANTONIO SÉRGIO SILVA

Médico Veterinário

Assistência Médico Veterinária Ltda.

DE MARTIN, B.W.; SALIBA, A.M.; RODRIGUES, C.A.; BACCARO, M.R.; ARDUCHI, A.; SILVA, A.S. Intra-luminal fibrosarcoma in the cranial vena cava of a dog. *Rev.Fac.Med.vet. Zootec.Univ.S.Paulo*, 20(1): 85-9, 1983.

SUMMARY: The present study refers to a male animal from the canine species, of indefinite breed, about 12 years old, that for several days had been presenting edema of the head and cervical region, including the former limbs and sternum region. Clinical examination showed high temperature (39,5 °C) bilateral purulent nasal discharge, mixed dyspnea, besides inappetence and prostration. Radiographic examination was impaired by the animal's condition at the time; other tests performed gave no information suggesting a circulatory obstruction near the cranial cava. Necropsy revealed a tumor of about 4x2x2 cm located in the luminal cranial cava vein. Histological examination showed it to be a fibrosarcoma.

UNITERMS: Fibrosarcoma*, dogs; Vena cava, fibrosarcoma

INTRODUÇÃO

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Fibrosarcomas represent a group of malignant neoplasias of fibroblastic origin. In the domestic species they occur most frequently in dogs and cats. The incidence is also greater in older animals, although young individuals might also be affected with no predisposition being founded according to breed or sex.

In dogs fibrosarcomas are mainly founded in the skin and subcutaneous cellular tissue, oral and nasal cavities and bone tissue (periosteum), the latter corresponding to up to 2 per cent of the skeleton primary tumors, with preference for facial bones, where the tumor malignity seems to be greater than in the long bones (1, 3, 4, 5, 6, 7). These tumors are seldom found in internal organs, although they have been detected in the bladder (9), in the spleen and in the esophagus, with the possibility of being related to the presence of *S. lupi noduli* (3, 4). The literature also mentions the sporadic occurrence of fibrosarcoma in the nictitating membrane (2).

In general fibrosarcomas show quick and infiltrating growth and seldom metastasization, and when exsceded, they relapse. It is estimated that metastasis occur in 25 per cent of the cases, via hematogen. The degree of malignity tumors are related to the infiltrative character, anaplasia, and number of mitotic figures (8, 10).

CASE PRESENTATION

This paper refers to a male animal from the canine species, of indefinite breed, about 12 years old, weighing 25 kilos, showing edema of the head, cervical region, forelimbs and sternal region. Clinical examination revealed a temperature of 39,5°C, bilateral purulent nasal discharge, mixed dyspnea, inappetence, and prostration; the animal had been treated previously with glicophysiological solution and Dexametason, showing no significative improvement. Observation of the edema's localization led us to suspect of the presence of an obstructive process at the cranial vena cava level. Radiographic examination, did not reveal the presence of tumor processes in the thorax entrance area, indicating the need of constrainging tests which were not performed due to the animal's disease.

ANATOMO-PATHOLOGICAL EXAMINATION

The necroscopic examination showed general edema of the subcutaneous cellular tissue, more pronounced at the head and neck levels. In the cranial cava vein lumen near the heart's base there was a whitish colored tumor formation, hard to the touch, of fibrous aspect, strongly adhered to the vascular wall, measuring 4 x 2 x 2 cm and partially obstructing the vascular lumen. Attached to the neoplasia there, was a reddish colored trombotic formation, above the obstructed site. The left and right handed hearts showed a high degree of enlargement. The lungs showed hemorrhagic infarct of various sizes, located

in the apical and diaphragmatic lobes. The other organs examined showed passive congestion and small hemorrhages. Fragments of the various tissues were fixed in formol at 15 per cent, enclosed in paraffin, and cuts of 5 μ were obtained and stained with Hematoxylin-eosin, Mallory's Trichromic, Wilder-Foot for reticular fibers and acid orcein for elastic fibers. Histological cuts of the tumor fragments showed a great number of cells resembling fibroblasts and fibrocytes, disposed in bundles that appeared cutted in several directions; among these cells numerous collagen and reticular fibers were observed. The cells showed intense basophilia, oval or roundish nuclei of several, sizes, with loose chromatin, showing one, two or more preminent nucleoli and countless normal and aberrant figures of mitosis. (figs. 3 e 4). In the pulmonar arterioles it was not unusual to see embolisms formed by neoplastic cells similar to those observed in the described neoplasia. The tumor was thus classified as a fibrosarcoma (Fig. 2).

DISCUSSION

There is no doubt that the location of the neoplasia histologically diagnosed as fibrosarcoma was responsible for the appearance of the pronounced edema in the regions of the head, forelimbs, and sternum. It should also be pointed out that secondary examinations, as simple radiography, blood and urine tests, gave no further contributions. The anatomopathological examination showed the presence of strongly adhered neoplasia to the cranial vena cava wall, histologically diagnosed as fibrosarcoma.

In our opinion the neoplasia was originated from the vascular wall since we have found no other neoplasia during the necropsy. The location is unusual, and as far as we know it have not been remarked to date in the veterinary literature. Our results agree to those described by several authors, fibrosarcomas seldom metastasizes. We would like to give special emphasis to the fact that notwithstanding the detachment of neoplastic cells, no metastasis development was noted.

DE MARTIN, B.W.; SALIBA, A.M.; RODRIGUES, C.A.; BACCARO, M.R.; ARDUCHI, A.; SILVA, A.S. Fibrossarcoma intra luminal na veia cava cranial de cão. *Rev.Fac.Med.vet. Zootec.Univ.S.Paulo*, 20(1): 85-9, 1983.

RESUMO: O relato refere-se a animal da espécie canina, sem raça definida, com aproximadamente 12 anos de idade, que há dias apresentava edema de cabeça, região cervical, atingindo inclusive os membros anteriores e região do esterno. O exame físico mostrava ainda temperatura retal 39,5°C, corrimento nasal bilateral purulento, dispnéia mista, além de inapetência e prostração. O quadro radiográfico foi prejudicado pelo estado em que o animal se apresentava e os demais exames não forneceram informações que auxiliassem a elucidar o quadro clínico, sugerindo tratar-se de obstrução circulatória na altura da cava cranial. O exame necroscópico mostrou tumoração de aproximadamente 4x2x2 cm localizada no lúmen da veia cava cranial que, ao exame histológico, demonstrou tratar-se de fibrossarcoma.

UNITERMOS: Fibrossarcoma, caes*; Veia cava, fibrossarcoma*



FIGURA 1 — Oedema of the head and cervical region, extending to the fore limbs and sternum area.



FIGURA 2 — Fibrosarcoma (f) followed by trombotic formation, located in the cranial vena cava lumen (cc).

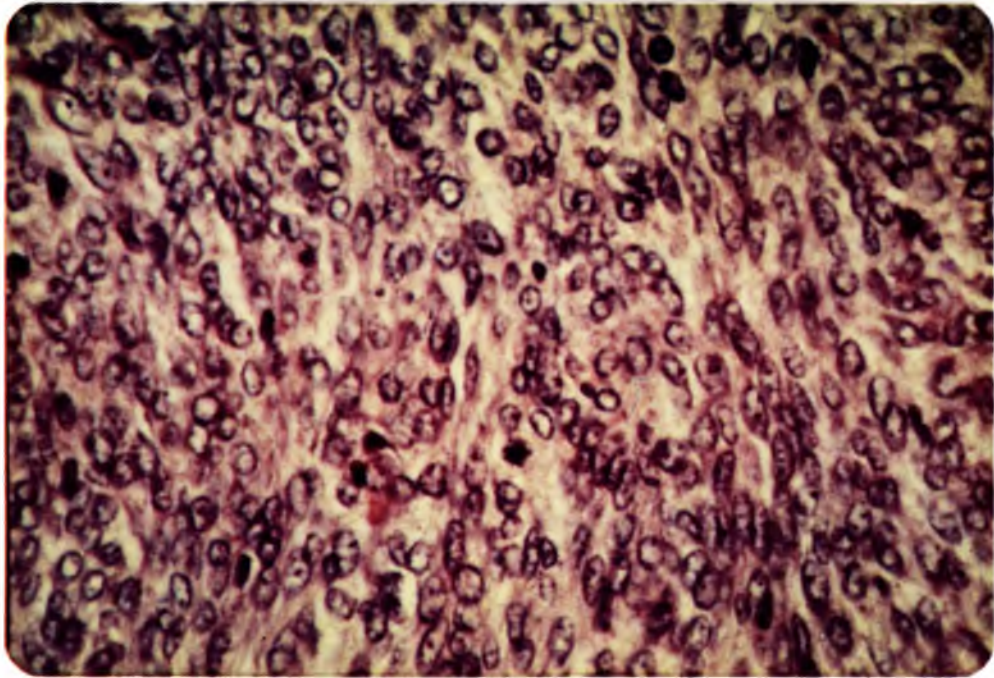


FIGURA 3 — Photomicrograph of fibrosarcoma area H & E Stain, x 160.

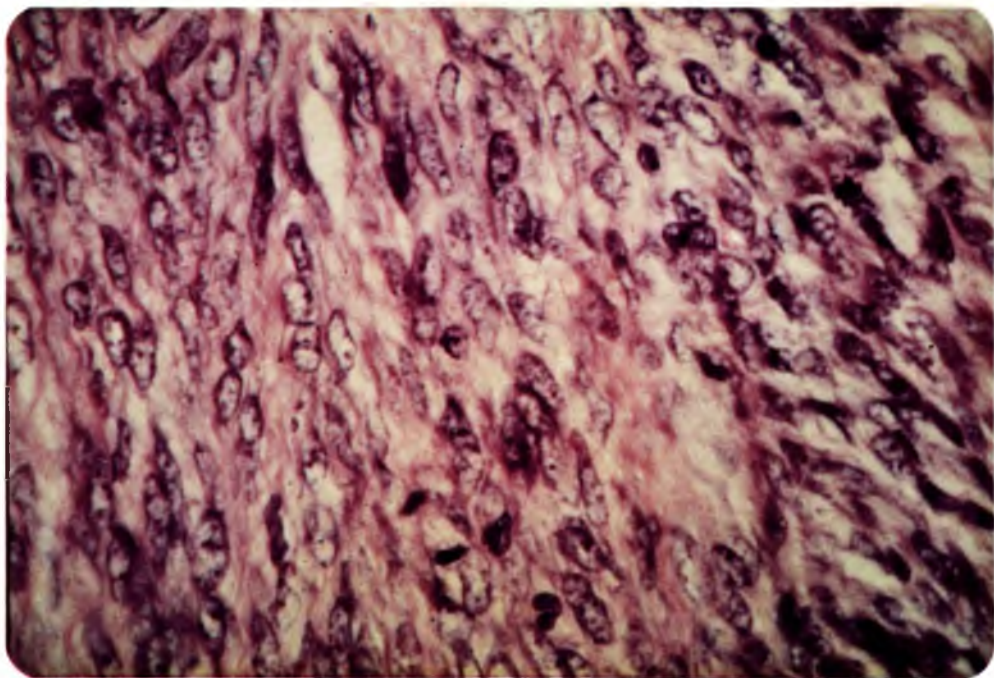


FIGURA 4 — Photomicrograph of the same fibrosarcoma area showed in fig. 3, x 400.

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Recebido para publicação em: 23-02-1981
Aprovado para publicação em: 18-03-1983