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## SOME SURGICAL AFFECTIONS OF THE HEAD AND NECK IN DOGS IN ALEXANDRIA PROVINCE

(With One Table and 14-Fig.)

By

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### بعض الاصابات الجراحية في رأس وعنق الكلاب في محافظة الاسكندرية

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حيث أن الكلاب تمثل أهمية كبيرة في الأمن والامان في حالات السلم والحرب وحيث أن الرأس والعنق تصاب باصابات عديدة كان من الواجب اجراء هذا البحث بفرض تحديد أكثر أنواع هذه الاصابات شيوعاً وقد أجرى هذا العمل على عدد ٢٦ كلب جميعها بها اصابات مختلفة في منطقتي الرأس والعنق ووجد أن نسبة اصابة الاذن والتهابات الاذن الخارجيه هي أعلى نسب للإصابة يأتي بعد ذلك جروح الوجه واصابات القرنية في العين ثم أكياس الرقبه الاحتباسية ثم حالات الحويصلات الجلديه في العين وكذلك سجلت حالات منفردة من جروح اللسان واصابات الجفن الثالث في العين وتجمع الدم في غرفة العين الامامية.

### SUMMARY

In the present work 26 dogs suffering from some surgical affections of the head and neck were examined. The results indicated that, otitis externa and othaematoma are of higher incidence followed by wounds of the face and chronic superficial keratitis of the eye. There was also single cases of, hyphaema of the eye, dermoid cysts, ectropion of the third eyelid, contracted ear flap. There was also one case of tongue wound. In the neck there were two cases of neck cysts and another two cases affected with mange.

### INTRODUCTION

The head and neck of dogs are usually subjected to many surgical affections in comparison to other parts of the body, hence the head and neck were chosen to demonstrate their common surgical affections.

Among these surgical affections, aural haematoma is a common traumatic injury to the ear of the dog specially in dogs with long pendulous ears, resulting from rupture of the great auricular artery and/or small vessels between the chondrium and perichondrium (CAYWOOD 1987).

Otitis externa or inflammation of the epithelium of the external auditory canal, involves commonly portions of the pinna of the ear. The disease often extends through the tympanic membrane resulting in otitis media. The disease often accompanies other parasitic, fungal, endocrine, immune mediated and allergic dermatosis. The disease may be either acute or chronic (CHRISTOPH, 1975; o CONNOR 1982 and CAYWOOD, 1987).

Among the surgical affections of the eye several affections were recorded, as chronic superficial keratitis which is mainly a disease of german shepherd characterized by subepithelial connective tissue infiltration and vascularization of the cornea. Ectropion marginis palpebrae tertiae (ectropion of the third eyelid), adenoma of the hardarian gland as well as dermoid of the cornea and conjunctiva of the eye were recorded in the present study. In addition to the above mentioned eye affections, hyphema was also recorded (BISTNER et al 1977; MAGRANE 1977; GLATT 1981; KASSEM and HASSIEB 1986 and MISK 1988).

The tongue is frequently wounded in various ways by needles, bites of glass or flint taken in food. The wound may



be superficial or deep, it can be treated by suturing by strong silk going right through its thickness (O'CONNOR 1982).

Salivary mucocele results from damage to the salivary gland or duct. saliva leaks into the surrounding tissues, causing a swelling beneath the tongue (Ranula), in the pharynx (Pharyngeal mucocele) or in the lateral or ventral neck and intermandibular area (Cervical mucocele). (BOJRAB 1975 and BONATH 1991).

#### MATERIALS and METHODS

In the present work 26 dogs suffering from some affections of the head and neck, were submitted to vet. clinics in Alexandria (Vet. clinic of police station for dog breeding and training, private Vet. clinics, down city vet. station in Alexandria and Vet. clinic of the faculty of vet. medicine).

The animal were injected with Rompun in a dose of 3 mg/kg body weight. intramuscularly to induce sedation of the animals before examination. Wounds of the tongue necessitated the use of Ketalar as a general anaesthetic in a dose rate of 10 mg/kg body weight injected intramuscularly. The examined animals were grouped and tabulated as shown in table (1).

#### RESULTS

Several surgical affection in the head and neck were recorded in the present study. They are shown in table (1). Othaematomas were recorded in 3 cases where the ear flap was swollen from the inner side and filled with blood (Fig.1). One case of contracted ear flap in a german shepherd 7 years old was met with as a complication of non treated othaematoma. The result was shrinkage of the concha, decrease in its size and its ugly appearance (Fig.2).

Five cases of otitis externa were met with, 2 cases were Griffon and 3 Cases were German shepherd dogs, the type of otitis in the Griffon was otitis externa erythematosa ceruminosa, where the inner skin of the concha was red. thickened and a bad odour discharge was coming out from the external auditory meatus (Fig. 3), while the German shepherds were affected with otitis externa ulcerosa and otitis externa proliferata, where multiple proliferations were observed at the entrance of the ear canal (Fig. 4).



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Table 1: Showing the number of cases suffering from different surgical affections of the head and neck in dogs.

Surgical affections	No. of patients
I - Affections of the head:	
1- Affections of the ear:	
a- haematoma of the concha of the ear	3
b- contracted ear flap	1
c- otitis externa	5
2- Affections of the eye:	
a-chronic superficial keratitis: unilateral	1
bilateral	3
b- adenoma of the hardarian gland	1
c- ectropion of the third eye lid	1
d- hyphaema of the eye	1
e- dermoid cysts: corneal	1
conjunctival	1
3- Wound of the tongue	1
4- Wounds of the face	4
II- Affections of the neck:	
1- neck cyst (salivary mucocoele)	2
2- Mange of the head and neck	2
Total	26

Two cases 2 months old German shepherd dogs affected with dermoid cysts were described in this work. One was unilateral conjunctival with long tufts of hair emerging from the lateral canthus of the eye (Fig. 5). The second was bilateral corneal dermoid with long tufts of hair from the lateral canthus (Fig. 6).

Four cases of chronic superficial keratitis in German shepherds 5-7 years old were met with, one case was unilateral, where pigmentation extends from the lower part of the cornea to cover nearly half the pupil (Fig. 7). The other cases were bilateral where grayish spotted colouration of the cornea is diffuse covering the whole pupil (Fig. 8).

One case of adenoma of the hardarian gland was met with in a Griffon dog 4 years old with rose pink colouration, the



condition was noticed in one eye only where the swelling was in the size of a bean originating from the medial canthus of the eye (Fig. 8).

A 2 years old wolf dog was presented with a history of a bite from another dog. Examination revealed ectropion of the third eye lid with hyphaema (Fig. 9).

Recent wounds of the face were registered in 4 cases in the present study. They were all incised wounds (Fig. 10).

A case of a longitudinal recent wound was seen in the tongue of a 6 years old German shepherd, where the tongue was seen separated into two parts (Fig. 11).

Two cases of neck cysts were met with in this work, one was in a German shepherd (Fig. 12) and the second was in a Griffon. The 2 cysts were present in the upper part of the neck and to one side.

Two cases of alopecia were affecting the head and neck in shepherd dogs as the result of mange (Fig. 13).

## DISCUSSION

The present results indicated that the incidence of otitis externa in dogs is relatively high (20%). This is in agreement with that of O'CONNOR 1982; CAYWOOD 1986 and BONATH 1991, who reported that, the high incidence of the condition in dogs more than the other animal species due to the anatomical constitution of the ear canal in these animals, the inverted L shape of the ear canal of dogs, predispose these animals to otitis externa, because of the possibility of retention of inflammatory exudate inside the ear canal. In addition the big size of the tragus together with the pendulous long ear prevent the exudate to be easily drained. Our results revealed that there is also relatively high incidence of the othaematoma among German shepherd dogs (12%), these results agreed with that of EL-GUINDY (1981); O'CONNOR (1982); CAYWOOD (1987) and BONATH (1991), who reported that the condition is a common traumatic injury to the ear concha resulting from rupture of the great auricular artery and/or small vessels between the chondrium and perichondrium. This is a natural sequelae to otitis externa, hence the percentage is comparatively high, this agreed also with that of BERGE and MULLER (1965).

In the present work one case of contracted ear flap was met with as a result of neglected treatment of the ear haematoma, the condition is relatively of rare incidence, the real cause of this affection is the transformation of ear tissue into fibrous tissue, where the latter contracts and the



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end result is shrinkage of the concha. These cases must be operated thoroughly before the elapse of 12 days. O'CONNOR (1982) and BONATH (1991) reported that this complication can be met with especially in dogs with small ears and also in cats.

Among the surgical affections of the eye, our results indicated that chronic superficial keratitis is relatively of high incidence especially in German shepherd dogs (16%). The incidence of bilateral cases was higher than that of unilateral. These results are similar to those described by BERGE and MULLER (1965); EL-GUINDY (1981) and MISK (1988), who reported that the disease affects mainly the German shepherd.

Conjunctival dermoid cyst is a common anomaly in some breeds of dogs it may be unilateral or bilateral (MISK 1988) but the cystic type carrying a very long tuft of hair is rarely met with. The condition was reported in one case in German shepherd dog 2 years old by KASSIB and HASSIB 1986, our result revealed the presence of two cases, one unilateral and the second was bilateral in two young shepherds, with long tuft of hairs in the lateral canthus of both dogs.

Our investigations revealed one case of adenoma of the hardarion gland of the third eye lid in a Griffon dog. In one eye the condition was described by BERGE and MULLER (1965) and MISK (1988) who reported that adenoma and adenocarcinoma have been described in dogs especially in unpigmented membranes. The previous authors stated that the condition is bilateral.

In the present work one case of hyphaema was met with in 2 years old Wolf dog where there is a collection of blood in the ventral anterior chamber of the eye, the condition was caused by a bite from another dog, this was in agreement with that of GELLAT (1981) who reported that the condition is caused mainly by trauma, penetrating foreign bodies and paracentesis, the author also reported that the blood is usually collected in the ventral anterior chamber of the eye.

Wounds of the face are relatively of high incidence (16%). This was due to the fact that dogs bite each others, presence of sharp objects as wire in the kennels which leads to the occurrence of incised wounds in the face, the problem of these wound is the fact that they may result in peripheral paralysis of the fascial nerve (EL-GUINDY 1981)).

Our study also reported one case of longitudinal wound in the tongue separating the tongue into two parts, the case was treated by suturing the tongue using 2/0 silk, the same as this described by O'CONNOR (1982).

Two cases of salivary mucocele (neck cyst) were met with in our work in the upper part of the neck resulting from damage



of the ducts of the mandibular and sublingual glands which leads to leakage of the saliva in the surrounding tissue of the neck resulting in the condition. These results are the same as those reported by BOJRAB (1975); EL-GUINDY (1981) and BONATH (1991).

Two cases of severe infestation with psoroptic mange were met with in our work where the head and neck were covered with some scales on the skin and falling of the hair, the same as reported by CHRISTOPH (1975).

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LEGENDS

- Fig. 1 : Showing aural haematoma in a 6 years old German shepherd dogs.
- Fig. 2 : Showing contracted right ear flap in a 7 years old German Shepherd dogs.
- Fig. 3 : Showing otitis externa erythematosa ceruminosa in a Griffon dog.
- Fig. 4 : Showing otitis externa proliferans in a German Shepherd dog.
- Fig. 5 : Showing unilateral dermoid cyst in a 2 monthes old G. Shepherd.
- Fig. 6 : Showing bilateral dermoid cyst in a 2 monthes old G. Shepherd.
- Fig. 7 : Showing unilateral chronic superficial keratitis in a G. Shepherd, The pigmentation covers nearly half of the pupil.
- Fig. 8 : Showing bilateral chronic superficial keratitis in a G. Shepherd, the pigmentation covers all the eye pupil.
- Fig. 9 : Showing adenoma of the third eyelid in a 4 years old Griffon dog.
- Fig. 10: Showing hyphema of the eye, ectropion of the third eye lid along with biting wound in the face in a 2 years old wolf dog.
- Fig. 11: Showing incised would of the face of a G. Shepherd dog.
- Fig. 12: Showing complete wound of the tongue in a 6 years old G. Shepherd.
- Fig. 13: Showing neck cyst in a 5 years old G. Shepherd.
- Fig. 14: Showing lesions of mange in the head and neck of a wolf dog.









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