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Clinical Cases Introduced to Hillat Kuku Veterinary Teaching Hospital During 1997 – 200٦

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Summary

In the present study the total number of the animals admitted to Hillat Kuku Veterinary Teaching Hospital (HKVTH), College of Veterinary Medicine and Animal Production, Sudan University of Science and Technology during the period 1997 – 2006 for medical management were 1690 cases. Caprine were the most common species admitted to the clinic (46.4%), followed by equine (31.7%), bovine (11.5%) and ovine (10.4%). Among the bacterial and viral diseases pneumonia was the most prevailing disease (55.2%) followed by mastitis (21.2%) and internal parasites were common among the alimentary tract diseases (15.3%), while dystocias (24.1%) and wounds (21.1%) were the most common cases required surgical interference.

Introduction

Veterinary hospital and affiliated department records serve as indispensable sources of valuable information on various diseases. Veterinary hospitals and clinics may help in understanding the geographic and environmental source of diseases and their natural history (Habtemarian and Adams, 1981). The eastern bank of the Blue Nile is rich with dairy farms which serve the developing dairy industry in Hillat Kuku area. Donkeys and horses are one of the means of transportation for human and goods. Sheep and goats (household animals) are reared mainly for milk production.

Few retrospective studies on different diseases of domestic animals diagnosed at veterinary hospitals and clinics were carried out in Sudan at the University of Khartoum Veterinary Medical Teaching Hospital and Nyala Veterinary Teaching Hospital (Aradaib and Abbas, 1985; Mohammed *et al.*, 1998). Salih *et al.* (2005) reported that the most animal diseases occurred during summer season (March-June) in Kassala State theileriosis, and coccidiosis ranked first among the diagnosed diseases in cattle and goats, but in equines microfilariasis was the common blood parasite.

This paper presents basic information on diseases diagnosed at Hillat Kuku Veterinary Teaching Hospital (HKIVTH) during the period 1997-2006. Furthermore, it may facilitate future planning for control of these diseases.

Materials and Methods

The study was based on the routine clinical examination to animals admitted to the HKVTH. Tentative diagnosis was obtained from permanent record files which included data on admission, species, sex, age, owner's name and address, case history, visual and physical examinations. Laboratory techniques were used as confirmatory tests.

Results

The total number of animals admitted to (HKVTH) from 1997 to 2006 were 1690 cases. Caprine species represented the largest number of cases (46.4%) admitted, followed by equine (31.7%), bovine (11.5%) and ovine (10.4%). Cases which required medical attention were 852 cases (50.4%) and those which needed surgical interference were 838 cases (49.6%), (Table 1).

As shown in table (2) diseases which required medical attention only were 852 cases (50.4%). The bacterial and viral diseases represented 45.3% of the cases. Among these diseases mastitis was (21.2%), conjunctivitis (8.3%), tetanus (1.3%), rabies (0.8%), pneumonia (55.2%) and arthritis (13.2%). The alimentary tract diseases diagnosed were 238 cases (27.9%). These were stomatitis (21.8%), intestinal and ruminal tympany (11.8%), colic (5.9%), lactic acidosis (5.9%), and internal parasites (15.3%).

Other diseases diagnosed in the HKVTH were skin diseases (4.7%) metabolic diseases and nutritional deficiencies (3.0%), blood parasites (2.9%), urinary tract infections (1.7%) and poisoning (1.2%) (Table 1)..

Cases which needed further surgical interference were 838 cases (49.6%). These included dystocias (24.1%), retained placenta (4.8%), uterine prolapse (4.8%), rectal prolapse (1.6%), atresia ani (3.0%), abscess (4.2%), fractures (6.6%), wounds (23.3%), teat fistula (3.9%), hernia (5.4%), closure of the teat (1.8%), tumors (9.5%), and foreign bodies (7.8%) (Table 3).

As shown in Fig. (1) there was obvious increase in the number of animals received in the HKVTH from 1997 to 2006. Year 2004 recorded the highest number (313 cases) of animals brought to the hospital for medical health management, while year 1999 showed the lowest number (87 cases) of animals. In year 2000 no records could be found due to certain technical reasons.

Table 1. Diseases diagnosed at Hillat Kuku Veterinary Teaching Hospital (1997 – 2006.)

Conditions	No. of cases				Total
	Equine (%)	Bovine (%)	Ovine (%)	Caprine (%)	
Surgical interference	258 (30.8%)	65 (7.8%)	73 (8.3%)	442 (52.7%)	838 (100%)
Bacterial and viral infections	127 (32.9%)	45 (11.7%)	38 (9.8%)	176 (45.6%)	386 (100%)
Alimentary tract diseases	102 (42.9%)	29 (12.2%)	31 (13.0%)	76 (31.9%)	238 (100%)
Dermatitis	29 (36.7%)	3 (3.8%)	17 (21.5%)	30 (38.0%)	79 (100%)
Metabolic diseases and nutritional deficiencies	6 (12.0%)	6 (12.0%)	3 (6.0%)	35 (70.0%)	50 (100%)
Blood parasites (Theileriosis)	1 (2.0%)	41 (3.7%)	4 (8.2%)	3 (6.1%)	49 (100%)
Urinary tract infections	12 (41.4%)	3 (10.3%)	4 (13.8%)	10 (34.5%)	29 (100%)
Poisoning	1 (4.8%)	2 (9.5%)	6 (28.6%)	12 (57.1%)	21 (100%)
Total	536 (31.8%)	194 (11.4%)	176 (10.4%)	784 (46.4%)	1690 (100%)

Table 2. Bacterial, viral and alimentary tract diseases diagnosed at Hillat Kuku Veterinary Teaching Hospital.

Diseases		No. of cases				Total
		Equine (%)	Bovine (%)	Ovine (%)	Caprine (%)	
Bacterial and viral diseases	Mastitis	0 (0.0%)	20 (24.4%)	15 (18.3%)	47 (57.3%)	82 (100%)
	Conjunctivitis	7 (21.9%)	5 (15.6%)	3 (9.4%)	17 (53.1%)	32 (100%)
	Tetanus	4 (80.0%)	0 (0.0%)	0 (0.0%)	1 (20.8%)	5 (100%)
	Rabies	2 (66.7%)	0 (0.0%)	0 (0.0%)	1 (33.3%)	3 (100%)
	Pneumonia	69 (32.4%)	19 (8.9%)	20 (9.4%)	105 (49.3%)	213 (100%)
	Arthritis	45 (88.2%)	1 (2.0%)	0 (0.0%)	5 (9.8%)	51 (100%)
Alimentary tract diseases	Stomatitis	41 (78.8%)	2 (3.8%)	5 (9.7%)	4 (7.7%)	52 (100%)
	Intestinal and ruminal tympany	11 (39.3%)	8 (28.6%)	2 (7.1%)	7 (25.0%)	28 (100%)
	Lactic acidosis	0 (0.0%)	0 (0.0%)	4 (28.6%)	10 (71.4%)	14 (100%)
	Colic	14 (100%)	0 (0.0%)	0 (15.4%)	0 (0.0%)	14 (100%)
	Internal parasites	36 (22.7%)	19 (14.6%)	20 (0.0%)	55 (42.3%)	130 (100%)
Total		229 (36.8%)	74 (11.9%)	69 (11.0%)	252 (40.3%)	624 (100%)

Table 3. Surgical conditions diagnosed at Hillat Kuku Veterinary Teaching Hospital during 1997 – 2006.

Conditions	No. of cases				Total
	Equine (%)	Bovine (%)	Ovine (%)	Caprine (%)	
Dystocia	3 (1.4%)	14 (6.3%)	24 (10.9%)	179 (31.1%)	220 (100%)
Retained placenta	1 (2.5%)	6 (15.0%)	4 (10.0%)	29 (72.5%)	40 (100%)
Uterine prolapse	0 (0.0%)	7 (17.5%)	4 (10.0%)	29 (22.5%)	40 (100%)
Rectal prolapse	13 (100%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	13 (100%)
Atresia ani	0 (0.0%)	1 (4.0%)	14 (56.0%)	10 (40.0%)	25 (100%)
Abscess	10 (28.6%)	6 (17.1%)	10 (28.6%)	9 (25.7%)	35 (100%)
Fractures	47 (85.5%)	3 (5.4%)	0 (0.0%)	5 (9.1%)	55 (100%)
Wounds	137 (77.4%)	2 (1.1%)	3 (1.7%)	35 (9.8%)	177 (100%)
Teat fistula	0 (0.0%)	0 (0.0%)	1 (3.0%)	32 (97.0%)	33 (100%)
Closure of the teat	0 (0.0%)	3 (20.0%)	2 (13.3%)	10 (66.7%)	15 (100%)
Hernia	2 (4.4%)	8 (17.8%)	8 (17.8%)	27 (60.0%)	45 (100%)
Tumors	45 (56.3%)	15 (18.7%)	0 (0.0%)	20 (25.0%)	80 (100%)
Foreign body	0 (0.0%)	0 (0.0%)	3 (4.6%)	62 (95.4%)	65 (100%)
Total	258 (30.6%)	65 (7.7%)	73 (8.7%)	447 (53.0%)	843 (100%)

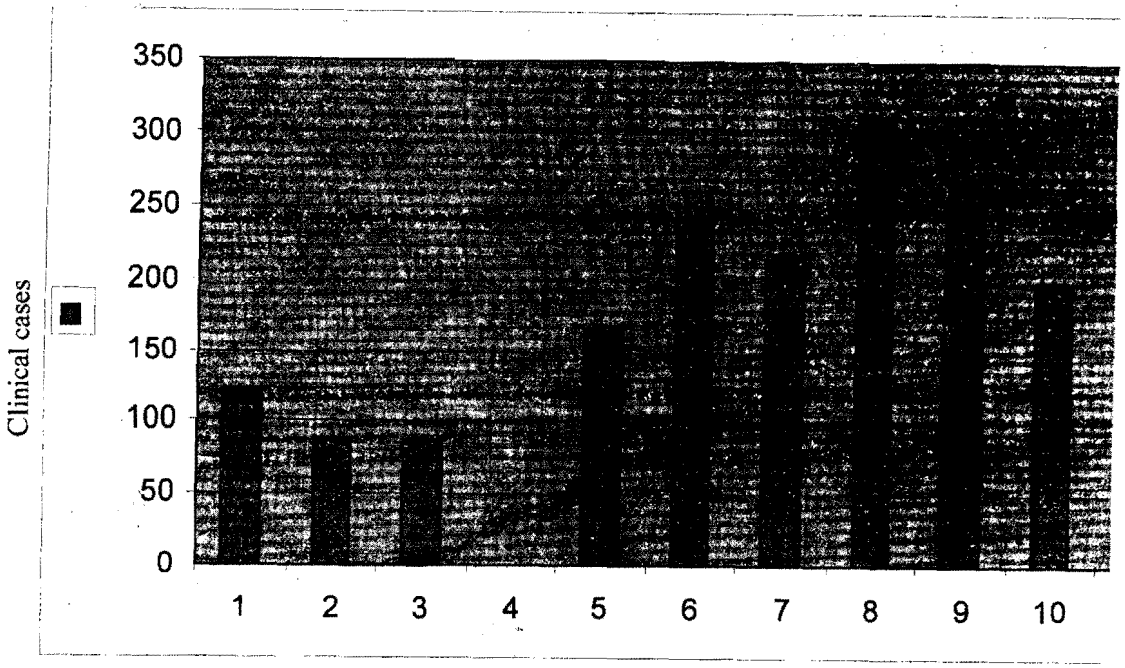

Fig. 1. Clinical cases presented to Hillat Kuku Veterinary Teaching Hospital during 1997 – 2006.

Discussion

In the present study, the goats represented the largest number of the species admitted to the HKVTH. This may be partially attributed to the fact that most of peoples in the vicinity of the hospital keep goats for daily milk consumption. Donkeys and horses in this area serve as a means of transportation for people and various types of goods. This may explain second large of cases admitted to HKVTH. The increase of the number of animal received in the HKVTH may be due to the improvement of veterinary services and increase awareness of the owner toward the health of their animals.

Among the bacterial and viral diseases mastitis was more prevalent in caprine. The increased incidence of mastitis among goats was previously reported by Blooser (1979) and Mukhtar (1988). The most common stage of mastitis in this investigation is acute stage and this is in contrary with findings of Aradiab *et al.* (1985) reported that all animals were brought to the clinic with chronic stage. Pneumonia showed prevalence in all species. This was mainly observed during winter season due to cold weather and poor nutrition. Susceptibility of animals to pneumonia is well known (Radostitis *et al.*, 2000). Arthritis was mainly observed in equine (donkeys), this may be due to the increase work load put on this animal together with poor feeding programmes. Similar findings were reported by Katherine (1996). The following difference can be noted in NVTH that the disease was low (avr. 8.8) than HVTH (88.2%) (Mohammed *et al.*, 1997). Somatitis was recorded in equine (mainly donkeys) due to the presence of sharp teeth in the most of the cases diagnosed. Sharp teeth as the main cause of stomatitis was reported by Radostitis *et al.* (2007). Internal parasites were common among the cases of alimentary tract disorders in all species, specially during the summer and autumn. These findings are agreement with Mohammed and Atta El Mannan (2003), this could be attributed to bad managements and poor hygiene.

Dystocias and foreign bodies were prevalent in caprine, while wounds, fractures and tumors were prevalent among equine. Bovine and ovine displayed the lowest number of surgical conditions. These findings are consistent with previous reports of Jones and Arthuer (1957) and Clarence and Asa (1986).

Its worth to mentioning that theileriosis was the only blood parasite diagnosed in the HKVTH due to presence of numbers of dairy farms in Hillat Kuku area. Bovine was the main animal species affected (41 out of 49 cases). This in accord with the finding of Salih *et al.* (2005).

It could be concluded from the present results that caprine and equine are the most animal species received in HKVTH. Medical and surgical conditions are of nearly similar occurrence. The most prevalent diseases which need medical attention are pneumonia, internal parasites, mastitis and arthritis. Dystocias,

wounds and foreign bodies were the most prevalent diseases among the surgical conditions.

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