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A Study on the Prevalence of Mange Among Arabian Camels in Najaf Province / Iraq

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ABSTRACT

The study was carried out at Najaf abattoir and some nomadic areas, for a period of five months , between January and May 2000 . A tota1 of (434) camels were examined clinically, and skin scrapings collected from suspected animals for laboratory investigation. Sarcoptic mange was diagnosed in (114) camels with an infestation rate of (25, 9%).The highest prevalence rate was recorded in January (38%), and the lowest was in May (14.8%).

The main clinical findings observed included easlessness, intensive itching, and the affected areas of the skin became hairless, thickened, corrugated and grey in color. Regarding affected regions of the body the highest incidence of mange lesions were recorded on the neck (60.5%) and the lowest incidence were on the tail (5.2%).There were no lesions observed on the hump.

Sex of animals showed no effect on the prevalence as well as the severity of the disease. Regarding age, the higher prevalence rate of the disease occurred in animals under 4 years of age.

INTRODUCTION

Mange is a very common and widely spreading disease of camels in most camel rearing countries[(1)], including Iraq[(2)]. 1t is a highly contagious obstinate and debilitating disease[(3)] and zoonotic one [(4)]. The causative mite, Sarcoptes scabiei var camel, is one of many definitive forms of Sarcoptes scabiei [(1)] .The cross infestation between different hosts occurred due to incomplete host specitity of parasite[(5).] The disease transmitted either by direct contact of animals or by fomile like blankets or saddles. Climate and season of a year have great bearing on the occurrence and spreads of mange [(3)]. The disease is more common in wet and colour weather, and spread slowly during summer months [(6).] This study was carried out in Najaf abattoir and some nomadic areas surrounding Najaf for a period of five months (January-May 2000) to determine the prevalence of sarcoptic mange in camel, the effect of weather

(month of the year) , as well as age & sex . The distribution of lesions on various parts of the body was studied too.

MATERIALS AND METHODS

The study was conducted in two places:-

I-Abattoir of Najaf governorate: Through six visits /month, a total of (151) camels were examined.

2-Najaf nomadic surroundings through two visits/month a total of (288) camels were examined.

Collection and examination of Skin scrapings: skin scrapings were collected from all suspected cases. After restraining of camels in recumbency position, the skin scrapings were taken from edges of lesions by scalpel blade until blood oozed. Scrapings were mixed with (10%) potassium hydroxide, heated to dissolve skin debries and after centrifugation, the sediment were microscopically examined for the presence of mites [7,8].

RESULTS

During the five months of the study a total of (439) camels of various ages were examined in two places .Of these (114) camels were infested with sarcoptic mites, i.e. an infestation rate of 25.9% . Prevalence of sarcoptic mange according to a month of examination is presented in table (1). The highest prevalence was recorded in the month of January with an infestation rate of (38%) , and then months of February , March and April with an infestation rate of (33.8%), (20.9%) and (20.9) respectively. The lowest prevalence rate recorded, was in May (14.8% only).

The main clinical findings of sarcoptic mange in camels were restlessness, intensive itching, scraching of the skin lesions by hind legs or by biting. The affected areas of the skin became hairless, thickened, corrugated and grey in colour with a progressive loss of body condition.

The distribution of skin lesions on camels body are shown in table (2). The highest incidence of mange lesion occurred on neck region (60.5%) and the lowest occurred on tail region (5.2%). There were no lesions observed on the hump region.

Number and infestation percentage of camels with sarcoptic mange on sex and age bases are shown in table (3) .Both sexes were infested in the same way; and regarding age of the infested camels the prevalence of disease was higher in animals under four years (33.3%) than in animals over four years of age (18.5%).

Table (1): No. and (%) of infested camels during months of the study.

Month	No. of camels examined	No. & % of camels infested
January	92	35 (38%)
February	62	21 (33.8%)
March	43	9 (20.9%)
April	215	45 (20.9%)
May	27	4 (14.8%)
Total	439	114 (25.9%)

Table (2): The distribution of sarcoptic skin lesions on 114 infested camels.

Body region	No. of infected animals	%
Head	40	35
Neck	69	60.5
Thorax	21	18
Forelimbs	25	21.9
Axellae	16	14
Rumps	33	28.9
Inguine	12	10.5
Hind limbs	9	7.8
Tail	6	5.2

Table (3): The effect of sex and age of camel on rate of infestation with sarcoptic mange.

	Sex		Age	
	female	male	Under 4 years	Above 4 years
No. of examined animals	256	183	207	232
No. (& %) of infested animals	68 (26.5%)	46 (25.1%)	69 (33.3%)	45 (18.5%)

DISCUSSION AND CONCLUSION

The high prevalence of sarcoptic mange in camel is in agreement with Higgins ,A.J. (1984) and Hassan, M.A.A.(1986) [1,2]. The high prevalence in the month of January, and the low prevalence in the month of May is in agreement with the findings of others[2 ,9,10 ,11]. A shorter hair with a cleaner animal skin toward the hot month of May will ensure an active blood circulation and active sweat glands, and hence unsuitable circumstances for the mange mites. The opposite is expected to happen during the cold and wet months of January and February [1,3].

The clinical signs observed during the study were recorded by Hassan, M.A.A.(1986) and Lodha ,K.R.(1966) [2,3] , and the highly infested neck region is in accordance with others[1,2] . There were no lesions observed on the hump, as recorded by Basu, A.K; Aliyu ,A. and Mohammed ,A. (1995) [10] . Sex of camels had no effect on the prevalence as well as the severity of disease and this finding was noticed by Rathor M.S. and Lodha, K.R. (1973) [9] too .The high prevalence of mange in camels under four years of age may be due to skin tenderness [12] .

Sarcoptic mange in camels has a high prevalence in Najaf province. The rate of infestation with mange was higher in the cold and wet months. The neck was the mostly affected region of the body. The disease is expected to occur in camels under four years of age than in those above 4 years of age.

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دراسة حول انتشار مرض الجرب في الجمال العربية في محافظة النجف في العراق

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ملخص

أجريت الدراسة في مجزرة النجف وبعض مناطق البادية هناك ولفترة خمسة أشهر امتدت من كانون الثاني إلى مارس 2000. تم فحص (434) جملاً فحصاً سريرياً وجمعت الكشطات الجلدية لأغراض الفحص المختبري. شخص مرض الجرب من نوع Sarcoptic في (114) جملاً وبنسبة خمج بلغت (25.9%). كان أعلى حدوث لمرض الجرب في شهر كانون الثاني وبنسبة (38%) وسجلت أقل نسبة في شهر مارس حيث بلغت (14.8%).

إن أهم العلامات السريرية التي لوحظت على الجمال المخمجة هي عدم الراحة والحكة الشديدة وكان الجلد المغطي للافة خالياً من الشعر ومتثخن ومتجعد ورمادي اللون، وفيما يتعلق بمناطق الجسم المصابة فإن أكثر أجزاء الجسم تعرضاً لآفات مرض الجرب هي الرقبة (60.5%) وأقل المناطق تعرضاً هي منطقة الذيل (5.2%) ولم تلاحظ آفات المرض على منطقة السنام.

لم يلاحظ تأثير لجنس الحيوان على حدوث المرض أو شدته، وفيما يتعلق بعمر الحيوان فإن أعلى نسب للمرض سجلت في الحيوانات التي لم يتجاوز عمرها (4) سنوات.