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**DEW CLAW ABNORMALITIES AND OVERGROWTHS
IN SHEEP AND GOATS**
(With 2 Table & 14 Fig.)

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(Received at 29/5/1991)

الشذوذات والنمو المفرط لأظلاف الندي
في الماعز والأغنام

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أجريت الدراسة علي الأغنام والماعز في بعض المزارع الحكومية وقد وجد أن بعض الشذوذات والنمو المفرط لأظلاف الندي في كثير من الحيوانات وهي علي النمو التالي أظلاف الندي الخطافية - أظلاف الندي المنحنية الي الخارج - أظلاف الندي علي شكل حرف (L) - أظلاف الندي علي شكل حرف (L) مقلوبة وكذلك أظلاف الندي الضامرة . وقد اتضح من النتائج أن الشذوذات والنمو المفرط في الندي في الأغنام في القائمة الخلفية أكثر منها في القائمة الأمامية وأن الشذوذات والنمو المفرط في الإناث أكثر منها في ذكور الماعز أو الأغنام .

SUMMARY

In the present study many types of dew claw abnormalities and overgrowths in sheep and goats were recorded and described. These abnormalities are Hook like, curved, wing like, diverging, L-shaped and hypoplastic dew claw. In the present investigation, most dew claw abnormalities were detected in the pelvic limb of the ewes more than in the thoracic limb, and were prevalent in ewes and does more than in rams and bucks.

INTRODUCTION

Claw abnormalities and deformities in cattle were overgrown claws, scissors claws and claw hypoplasia. Overgrown claw is characterized by an elongation of the claw with an increase in the length of the wall and sole. Scissors claw is characterized by excessive overgrowth of both claws accompanied by overlapping. Claw hypoplasia is

characterized by reduction in the size of one or both claws, KHAMIS, HASSANEIN, AHMED, SOLIMAN and EASA (1984).

GREENOUGH (1982) and GREENOUGH; MACLALLUM and WEAVER (1972) stated that there are four types of overgrown claws in cattle which are stall claw, deformed claw, overgrown claw and stable claw. In addition O'CONNOR (1982) mentioned that the claw deformities are long or turned inward, outward and overlapping in ruminant animals. These deformities causes severe lameness.

The most common claw abnormalities in cattle and buffaloes in upper Egypt are corkscrew, scissors, overgrown and curved. Claw abnormalities are prevalent in female than in male animals and higher incidence of claw abnormalities in the hind limb were observed in freisian cattle, ALI (1983).

SOLIMAN, SHABAN, EL-MELIGY and ABD EL-GULIL (1984) described certain foot problems in sheep and goats which are considered the main cause of the locomotor disturbance. They added that the foot abnormalities in the form of regular and irregular overgrowth of the foot were Beak (elongated foot with consomme dorsal surface and turned up toe), Corkscrew (elongated with spiral shape of its wall), and scissors claw (elongated with overlapping one toe on the other).

FLORENTIN (1963) mentioned that light coloured claw suffered more than dark pigmented claw by abnormalities.

MATERIAL and METHODS

This study was carried out on sheep and goats collected from governmental farms with the exception of very few numbers which are belonging to farmers.

Eight types of abnormalities and overgrowth of the dew claws were recorded in sheep and five types were recorded in goats. Abnormalities and overgrowths of the dew claw were easily corrected by shortening using a special scissors.

RESULTS

In the present study, eight types of abnormalities and overgrowth of dew claw (accessory claw) were recorded in sheep.

Hook like lateral dew claw of the right fore limb of ewe was present. The medial is short and normal (about 3 cm. in length). The length of the Hook elongated dew claw is about 7 cm. Fig. 1.

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Curved out medial dew claw of the left fore limb of ewe was present. It is directed toward the lateral one and its length is about 11 cm at its greater curvature, but the lateral normal one is about 4 cm. in length, Fig. 2.

Wing like dew claw in the right hind limb of ewe was present. The two claws appeared as the wing of birds in transverse straight line up to the normal direction of the limb. Their lengths are the same and were about 6 cm. Fig. 3.

Parallel laterally curved dew claw in ewe was present. The two claws are directed laterally parallel to each other. The medial one is pointing toward the upper part of the lateral main claw. The lateral dew claw is directed to outside parallel to the medial dew claw, Fig. 4.

Diverging downward dew claw in left hind limb of ewe was present. The medial one is about 10 cm in length and passes downward and medially, while the lateral one is about 12 cm and passes downward and laterally, Fig. 5.

Laterally and medially curved dew claw was observed. The lateral dew claw is directed laterally parallel to the ground while the medial dew claw is directed medially and downwards in the right hind limb of ewe. The lateral one is thicker at the tip than the root and its length is about 8 cm. The medial is also, thick at its tip as the other one and its length is about 5 cm, Fig. 6.

Inside and downward curvature of both dew claws was observed in the hind limb of ewe. Their ends approach each other and the medial claw is more tapering than the lateral one, Fig. 7.

L-Shaped and inverted L-shaped dew claw in the left hind limb of ewe was present. The lateral one is curved, directed to lateral side and its length is about 9 cm. The medial claw is curved to medial aspect and its length is about 11 cm, Fig. 8.

In the present study. There are 5 types of abnormalities and overgrowths of dew claws in goats. These abnormalities and overgrowths are:

Inverted L. lateral dew claw was observed in a balady doe with a length of about 10 cm, while the other claw was normal and about 5 cm in length, Fig. 10.

Parallel medial direction of both dew claws was observed in the right as well as the left thoracic limb of buck. The main claws and dew claws are nearly of the same length, Fig. 11 and 12.

Hypoplastic medial dew claw was observed in the left pelvic limb of a buck, Fig. 13.

L-shaped medial dew claw deviated medially was recorded in the left thoracic limb of a buck, Fig. 14.

In the present investigation, it could be revealed that most dew claw abnormalities and elongation in sheep were detected in the pelvic limb of ewes more than in the thoracic limb as shown in Table 1. On the other hand most dew claw abnormalities in goats were detected in the thoracic limb more than in the pelvic limb as shown in Table 2.

All these abnormalities were corrected by shortening using a special scissors.

DISCUSSION

In sheep dew claw abnormalities take several forms as hook like, curved out, wing like, parallel to each other and laterally curved, diverging inside and downward curvature, L-shaped and lastly inverted L-shape.

In goats the abnormalities of dew claws were L-shaped, inverted L-shape, parallel medial direction of both claws and lastly hypoplastic dew claw.

In the present study it was noticed that these abnormalities were prevalent in governmental farms, where their places are not cleaned periodically due to the neglect of the attendants. In addition, these animals are left without trimming for several years and subjected to moisture and dryness specially in winter time.

Dew claw abnormalities were prevalent in ewes and does more than in rams and bucks owing to the fact that males are more irritable and move too much searching for female in heat, hence wear of the claws is more than in females. In addition, the number of males is usually not exceeding 10% of the number of females.

Abnormalities of the dew claws were more prevalent in white and pale colored claws more than in dark and black coloured ones. The results of this study agree with that mentioned by FLOENTIN (1963).

In the available literature, we did not find any work on dew claw abnormalities neither in large nor in small animals.

In the present study the abnormalities and overgrown claws either dew claws or main claws are prevalent in females than in males specially their hind limbs. The same was mentioned by ALI (1983) that the higher incidence of claw abnormalities in the hind limb were observed in cows.

GREENOUGH (1982) and ALI (1983) stated that wrinkled claws are only present in the hind feet, owing to the fact that the hind feet horn is weaker than the horn of the fore feet. In addition the hind feet are subjected to moisture from faces and urine.

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KHAMIS, *et al.* (1984) recorded 3 forms of main claw abnormalities in cattle namely, hypoplasia, overgrown claw and scissors claw, while O'CONNOR (1982) mentioned that deformities in ruminants are long claws, turned out, turned in and overlapping ones. On the other hand ALI (1983) described the following claw abnormalities in ruminants; curved claws, interdigital hypoplasia, claw hypoplasia, wrinkled claw, beak claw, toeing out and lastly bent medial claw. The same aforementioned were stated by GREENOUGH, *et al.* (1972) and GREENOUGH (1982) in cattle, while SOLIMAN, *et al.* (1984) described 3 types of abnormalities of the claws in sheep namely; beak claw, corkscrew and scissors claw.

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LEGENDS

- Fig. 1: Shows hook like dew claw in ewe.
- Fig. 2: Shows curved out medial dew claw laterally in ewe.
- Fig. 3: Shows wing like dew claw in ewe.
- Fig. 4: Shows parallel laterally curved dew claw in ewe.
- Fig. 5: Shows diverging dew claws in ewe.
- Fig. 6: Shows laterally curved lateral dew claw & downward direction of medial one in ewe.
- Fig. 7: Shows curved in and downward curvature of dew claw.
- Fig. 8: Shows L-shaped and inverted L-shaped dew claw in ewe.
- Fig. 9: Shows inverted L-shaped of lateral dew claw in Doe.

Fig. 10: Shows L-shaped lateral dew claw in Doe.

Fig. 11 & 12: Shows medial parallel direction of both dew claw in buck.

Fig. 13: Shows hypoplastic medial dew claw in buck.

Fig. 14: Shows L-shaped medial dew claw in buck.

Table (1): Showing the types of dew claw abnormalities in both thoracic and pelvic limbs in sheep.

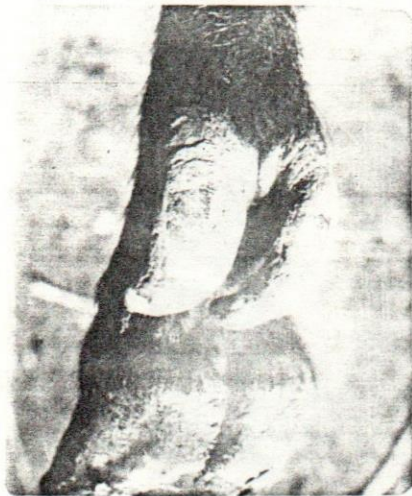
No.	Type of abnormalities	Animal	Thoracic limb		Pelvic limb	
			L	M	L	M
1	Hooked like	ewe	+	-	-	-
2	Curved out	ewe	+	-	-	-
3	Curved out	ewe	+	+	-	-
4	Wing like	ewe	-	-	+	+
5	Parallel laterally curved	ewe	-	-	+	+
6	Divering	ewe	-	-	+	+
7	Inside and downward Curvature	ewe	-	-	+	+
8	L-shaped and inverted L-shaped	ewe	-	-	+	+

Table (2): Types of dew claw abnormalities in thoracic and pelvic limb in goats.

Type No	Animal	From of dew claw	Thoracic limb		pelvic limb	
			L	M	L	M
1	Doe	Inverted L-lateral dew claw	+	-	-	-
2	Doe	L-shaped	+	-	-	-
3	Buck	Parallel medial direction	+	+	-	-
4	Buck	Hypoplastic medial	-	-	-	+
5	Buck	L-shaped medial	-	+	-	-

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