



شبكة المعلومات الجامعية  
التوثيق الإلكتروني والميكروفيلم

# بسم الله الرحمن الرحيم



**MONA MAGHRABY**



شبكة المعلومات الجامعية  
التوثيق الإلكتروني والميكروفيلم



# شبكة المعلومات الجامعية التوثيق الإلكتروني والميكروفيلم



**MONA MAGHRABY**



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# جامعة عين شمس التوثيق الإلكتروني والميكروفيلم

## قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها  
علي هذه الأقراص المدمجة قد أعدت دون أية تغييرات



## يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار



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## **Studies on the prevalent Surgical Affections of Sheep and Goats in Kuwait**

Thesis presented

By

**Khalifa Khalaf Ali**

B. V. Sc of Veterinary Medicine  
Yemen Tamar University (2002)

For

The Degree of M.V. Ss  
(Surgery, Anesthesiology and Radiology)

Under the Supervision of

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## APPROVAL SHEET

This Thesis hereto entitled:

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# Studies on the prevalent Surgical Affections of Sheep and Goats in Kuwait

Presented by:

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Tamar University (2008)**

For fulfill the requirements of  
**The Degree of M.V. Ss (Surgery, Anesthesiology and Radiology)**  
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## **SUPERVESION SHEET**

### **Studies on the prevalent Surgical Affections of Sheep and Goats in Kuwait**

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### **Abstract**

The importance of small ruminants is primarily associated with three important reasons: economic, managerial and biological. Economic advantages include low initial investment and correspondingly smaller risk of loss from individual deaths. Managerial considerations favour their care by unpaid family labour and limited resource use for the supply of meat and milk in quantities suitable for immediate family consumption. Biological factors include possible preference over large ruminants, food, and reproductive efficiency, and in turn, economic use of the available land for maximum product output in terms of meat, milk, wool, hair, and hides from both species. Sheep and goats are a generational legacy in the State of Kuwait, so this study was designed to record surgical affections in sheep and goats in the state of Kuwait. The study was conducted from October 2017 to October 2019 in different farms and hospital belonging to Public authority for agriculture affairs and fish resources - Kuwait City, Kuwait. From the obtained data, a total number of 658 small ruminants (385 sheep and 273 goats) suffered from different surgical affections were recorded. The incidence of these affections varied in both species and different ages. Sixty surgical affections were recorded among sheep and goats (14 congenital and 46 acquired affections representing 17.9% and 82.1% respectively). In the present work, the surgical affections were classified in systematic manner into urogenital system (18.54%) (sheep, 20.5% and goats, 15.8%), udder and teat (14.29%) (sheep, 15.6% and goats, 12.5%), digestive system (13.37%) (sheep, 14.5% and goats, 11.7%), integumentary system (13.07%) (sheep, 12.2% and goats, 14.3%), musculoskeletal system (12.31%) (sheep, 10.1% and goats, 15.4%), abdominal wall (10.49%) (sheep, 10.6% and goats, 10.3%), eye (9.42%) (sheep, 8.3% and goats, 11.0%), ear (5.47%) (sheep, 4.2% and goats, 7.3%) and respiratory system (3.04%) (sheep, 3.9% and goats 1.8%). Congenital anomalies more prevalent in goats than sheep. Metabolic, nutritional and infectious surgical conditions were more common in sheep, however traumatic affections more in goats. In the present study, rare cases were recorded for first time in the state of Kuwait including buried penis in ram, sticking out of tongue in 12 goats, atresia ani in adult one ewe and three goats, narrow nostril of 25 sheep, hematoma in unilateral testis of a buck and enzootic nasal adenocarcinoma (ENA) in one sheep and three goats. While sheep and goats share many surgical affections due to their anatomical and physiological similarities, there is a distinct nature of each species that makes some disorders more dominant in one species than the other. According to the authors' knowledge, the present study was the first record of different surgical affections among sheep and goats in the state of Kuwait.

**Keywords:** Atresia Ani, Dystocia, Foreign Body, Gangrenous Mastitis, Goats, Sheep.



## DEDICATION

*I dedicate this humble thesis especially to my beloved country of Kuwait and in general to all colleagues of veterinarians all over the world and to those who mean those special messages in animal surgery, asking God almighty to be valuable with their eyes and spread with their generous arms.*



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*I would like to thank all those who supported and helped me, and I ask grateful **ALLAH** to deem this work purely for his generous face and help me to share the scientific knowledge with all the research communities and my colleagues of the veterinarians and the owners of small ruminants all over the world.*

