

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

DEDICATION

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TO MY PARENTS

,TO MY WIFE HANAN

WHO ENCOURAGED ME TO DO THIS WORK

,TO MY BROTHERS AND SISTERS

SPECIALY HUSSIN ALKANZEE

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**"Verily, my prayer, my sacrifice, my living and my dying are for
Allah, the Lord of the Worlds"**

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ABSTRACT

This study was conducted in the Hail Region, Kingdom of Saudi Arabia. The objectives of this study were to record the incidence of contagious skin necrosis (CSN) (*Naeita, Alara*) in camel (*Camelus dromedarius*) in Hail Region, to isolate the causative agents of the disease, to study the clinicopathological changes associated with CSN and to study the histopathology of the disease. The survey included 11,000 camels of both sexes in 220 herds with age range 6 months -8 years. All camels were clinically examined. The control camels were healthy and no skin lesions were detected. All camels with skin lesions were grossly examined and tentative diagnosis of contagious skin necrosis (CSN) was done. The lesions were distributed in various areas of the body (neck, inguinal, flank and limbs). Infected camels with CSN were 1080 camels (9.6%). No changes were observed in the body temperature and the respiratory rate of diseased camels. Blood samples were collected and swabs from CSN lesions were taken to measure haematological parameters and the serum was separated and tested for the liver enzymes Gamma glutamyl transpeptidase (GGT) and Alanine transaminase (ALT) and renal function (urea and creatinine). Serum Copper (Cu) and Zinc (Zn) were measured. Skin lesions were collected and kept in 10%

formal saline for histopathological study. Red blood cell and hemoglobin concentration were significantly decreased and the total blood cells count, neutrophils and basophils and lymphocytes were increased. The activity of (GGT) and (ALT) enzymes and serum Cu were increased and no changes in serum urea and creatinine concentrations. Six isolates of bacteria: *B. subtilis*, *P. aeruginosa*, *P. mirabilis*, *S. aureus*, *S. faecalis* and *E. coli*. and five fungi: *Helminthsporium spp.*, *Altrnaria spp.*, *Fusarium spp.* *Penicillium spp.* and *Cladosporium spp.* were identified.

ملخص الأطروحة

أجريت هذه الدراسة في منطقة حائل بالمملكة العربية السعودية. هدفت الدراسة للتعرف على مرض (النعيتة، العرة) في الإبل في منطقة و لعزل السبب للمرض ولدراسة الأعراض الاكلينيكية و المرضية وكذلك دراسة شكلي الآفة المرضية وانتشارها في الجسم والتعرف على العوامل المسببة وتشخيصها مختبريا.

و لدراسة النسيج المرضي للآفت. وشملت الدراسة فحص عدد 11000 رأس من الإبل موزعة على عدد 220 قطيع من الإبل من كلا الجنسين من الفئة العمرية 6 أشهر -8 سنوات. تم فحص جميع الإبل اكلينيكيًا و للكشف عن آفات الجلد. وتوزعت الآفت في مناطق مختلفة من الجسم (العق، الأربية و البطن والأطراف). وكانت الإبل الصابة بالنعيتة 1080 (9.6 %). لم يلاحظ أي تغيير في درجة حرارة الجسم ومعدل التنفس في الإبل المرضية.

تم جمع عينات من الدم وأخت مسحت من الآفت. تم فصل المصل لدراسة مستوى انزيمات الكبد (ALT) (GGT) و وظيفة الكلى (اليوريا والكرياتينين). تم قياس مصل النحل (النحل) والزنك (الزنك). وقد تم جمع الآفت الجلدية وأحتفظ بها في 10 % فورمالين لدراسة النسيج المرضي. انخفضت بشكل ملحوظ خلايا الدم الحمراء وتركيز الهيموغلوبين وارتفعت كريات الدم البيضاء، والعدلات وقعدت وعدم تأثر الخلايا الليمفاوية. وزاد نشاط الانزيمات (GGT) و (ALT) والنحل في المصل ولم يكن هناك أي تغييرات في تركيز اليوريا والكرياتينين. من خلال الدراسة تم التعرف على عدد 6 أنواع من البكتريا المسببة للمرض وعدد 5 أنواع من الفطريات وقد كانت الإصابة مختلطة في جميع الحالات وهي بكتيريا:

: *B. subtilis*, *P. aeruginosa*, *P. mirabilis*, *S. aureus*, *S. faecalis* , *E. coli*.

و فطريات : *Helminthsporium spp.*, *Altrnaria spp.*, *Fusarium spp.* *Penicillium spp.*,

Cladosporium spp. *Helminthsporium SPP*

