

# ميكروفلورا الجزء العلوى فى الجهاز التنفسى فى الحجر السليمة اكلينيكيًا

ط. ٠١٠٠ العلوى ، م. عطية ، ٠١ ع. عامر

## الملخص العربى

أخذت مسحة من الجزء العلوى للجهاز التنفسى لعدد ٦٠ حمارا سليما اكلينيكيًا بمدينة أسبوط. وقد أجرى الفحص البكتريولوجى لهذه العينات وأسفرت النتائج عن عزل الميكروبات التالية :

- ١ - استافيلوكوكس أوريس بنسبة %١١٦٧
- ٢ - استافيلوكوكس ألبس بنسبة %٢٥
- ٣ - استربتوكوكس بيوجينس بنسبة %١٦٦٧
- ٤ - أشريشيا كولاى بنسبة %١٠
- ٥ - كورينى بكتريا أكواي بنسبة %٨٣٢
- ٦ - بروتييس ميرابيليس بنسبة %١٦٦٧
- ٧ - بسيودومونس ايروجنوزا بنسبة %١١٦٧

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## **BACTERIAL FLORA OF THE PHARYNGEO-TONSILLAR PORTION OF CLINICALLY HEALTHY DONKEYS IN ASSIUT.**

(With one table)

By

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### **SUMMARY**

Swabs were made for isolation of bacterial flora of the pharyngo-tonsillar portion of 60 clinically healthy donkeys in Assiut.

The percentage of bacterial isolates were : Staphylococcus aureus 11.67, Staphylococcus albus 25.00, Streptococcus pyogenes 16.67, Escherichia coli 10.00, Corynebacterium equi 8.32, Proteus mirabilis 16.67, Pseudomonas aeruginosa 11.67.

### **INTRODUCTION**

Intensive studies were done on the bacterial flora of the pharyngo-tonsillar portion of clinically healthy animals. SINGH (1967) could isolate 17 species of bacteria from samples obtained from trachea and lungs of buffaloes. GASPARE and MICHELINO (1968) isolated 38 strains of pathogenic Staphylococci from tonsils of 110 normal slaughter pigs, while SHIGIDI (1973) made cultures from nasal swabs, lungs and bronchial lymph nodes of 64 apparently healthy camels, obtained swabs yielded bacilli in 26.2%, diphtheroids in 15.9%, Corynebacterium pyogenes 5.4%, Alpha haemolytic Streptococci 5.1%, Escherichia coli 1% and Enterobacter aerogenes 0.5%.

Moreover, SIMPSON (1964) could isolate Corynebacterium equi from discharges of adult horses.

Concerning donkeys, there is a wide gape and the available literatures lacks much informations about isolates in healthy individuals of this species. The aim of this preliminary report is to investigate bacteria that may harbour the pharyngo-tonsillar portion of clinically healthy donkeys.

## MATERIALS AND MEHODS

### 1.—Materials.

Sterilized swabs were used for obtaining samples from the pharyngo-tonsillar portion of 60 clinically healthy donkeys.

### 2.—Methods :

Obtained swabs were inoculated on nutrient agar, blood agar, chocolate-agar and Machonkey's agar media. The inoculated plates were incubated at 37°C for 24-48 hours. The isolates obtained were identified morphologically, culturally, biochemically ana serologically in accordance with those described by MERCHANT AND PACKER (1967).

## RESULTS

The following table shows the bacterial isolates from the pharyngo-tonsillar portion of 60 clinically healthy donkeys.

Bacterial isolates	Number	Percentage
Staphylococcus aureus . . . . .	7	11.67
Staphylococcus albus . . . . .	15	25.00
Escherichia coli . . . . .	6	10.00
Streptococcus pyogenes . . . . .	10	16.67
Proteus miriabilis . . . . .	10	16.67
Pseudomonas aeruginosa . . . . .	7	11.67
Corynebacterium equi . . . . .	5	8.32

## DISCUSSION

### *Staphylococci :*

GASPARE and MICHELINO (1968), SHIGIDI (1973) could isolate staphylococci from tonsils of pigs and tracheal swabs of camels respectively. The micro-organism was also isolated in this work in a percentage of 11.67 for *Staphylococcus aureus* and 25.00 in *Staphylococcus albus*.

Staphylococci are found in miscellaneous infections, often in association with other micro-organisms.

*Streptococcus pyogenes* :

*Streptococcus pyogenes* were isolated by SHIGIDI (1973) from bronchial swabs of camels, the micro-organism was found in 5.1% from 64 clinically healthy camels. However, in this work *Streptococcus pyogenes* were also isolated in 16.67% of examined donkeys.

The micro-organism is also found in throat and naso-pharynx of normal people, this also found in tonsillitis, sore throat, otitis media, bronchopneumonia and wound infections.

*Escherichia coli* :

*Escherichia coli* was also isolated from tracheal swabs of camels in 1% from 64 clinically healthy camels by SHIGIDI (1973).

In the present study the micro-organism was also isolated in a percentage of 10.00. *Escherichia coli* may invade the appendix, gall bladder, kidney and urinary bladder. Infection of the sinuses, bronchi and lungs become more frequent, moreover *Escherichia coli* are also important as secondary invaders in infected wounds (SOLTYS, 1963).

*Pseudomonas aeruginosa* :

*Pseudomonas aeruginosa* was isolated by SHIGIDI (1973) from camels in a percentage of 0.5%. In the present investigation, it is isolated in a percentage of 11.67. The micro-organism is also involved in equine abortions, genital infections of mares. FARRAG and MAHMOUD (1953) claimed that *pseudomonas aeruginosa* occurred in a high percentage of otorrhea in dogs.

*Corynebacterium equi* :

SIMPSON (1964) could isolate *Corynebacterium equi* from discharges of adult horses. This micro-organism was also isolated in this work from donkeys in a percentage of 8.32.

*Corynebacterium equi* was also isolated in cases of pneumonia of young foals (MAGNUSSON, 1923).

The above findings may help the clinician in diagnosis of some respiratory affections in this species. These microorganisms are of great importance since they became highly pathogenic following lowering resistance of the animal body.

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