

انتشار وباء القراع فى الأغنام الأوسيمى فى مصر

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ظهر وباء القراع فى مزرعة المنيا فى عدد ٤٥ من ٣٠٠ خروف وقد كان ظهور الأمراض حول الأذن والعين والقرون وعلى الأنف .

وبفحص عينات من الشعر والجلد وجد أن ٣٤ خروف كانوا مصابين وكانت نسب العترات المختلفة لمسببة مرض القراع كالتالى :

T. Verrucosum.	٢٠ - ١	عطرة
T. Mentagrophytes.	٩ - ٢	عترات
T. Terrestre.	٥ - ٣	عترات

تم علاج الحالات المصابة باستعمال عقار (Fulcin.) لمدة عشرة أيام متتالية بوضعها فى العليقة وكذلك باستعمال فيتامين أ فى العضل .
وقد تم دراسة هذه العترات بواسطة حقنها فى الأرانب وكذلك الأرانب الغينية .

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AN OUTBREAK OF RINGWORM IN OSEEMY

SHEEP IN EGYPT

(With One Table)

By

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SUMMARY

An outbreak of ringworm in oseemy sheep occurred in a farm in upper Egypt containing 300 Sheep from which 45 animals showed skin lesion, that were mostly located on the head especially around ears, eyelids, horns and also on the dorsum of the nose.

The direct microscopic examination of the collected crust and hair samples revealed that 34 (75.5%) were positive. A total of 34 strains of dermatophytes were recorded. The most predominant spp was *T. verrucosum* (20 strains) followed by *T. mentagrophyte* (9 strains) and *T. terrestre* (5 strains). Clinical and mycological recovery of the diseased sheep were obtained after treatment with Fulcin for 10 successive days in the ration and by injection of vit. A intramuscularly. The pathogenicity of the isolated dermatophytes were experimentally, investigated in both guinea Pigs and rabbits.

INTRODUCTION

Ring worm or dermatomycosis is one of the important diseases which affects both man and animals. The disease affect various animal species such as cattle, horese, dogs, cats (Christiane, 1967), cattle, pigs, horses, cats, guinea pigs and rats (Mantovani and Morganit, 1971). However, sheep ring worm in not recognised as a common disease, although it has been reported by Guilhon and Oblini (1956), Kielstein and Weber (1965) and Vanbrenseghem (1967). Out breaks of sheep dermatomycosis in Egypt is

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obscure literature except for the sporadic cases among II ewes reported by Abd-Elnor (1973), so; it was necessary in this study to investigate the etiology of an outbreak of ringworm among oseeemy sheep. Also a trial was performed for treating the infected cases.

MATERIALS AND METHODS

Collection and examination of samples:

A total of 45 sheep showing ringworm lesions were examined by means of a clean, disinfected scalpel and forceps. Skin crusts and hair samples were collected after the application of 70% alchod. Direct microscopical examination of the obtained samples were performed using a soluion of 5% potassium hydroxide and 25% glycerol (Solytis and Smith 1969).

The collected materials were cultured on Sabourauds dextrose agar containing antibiotics (pencilin 20 i.u, streptomycin 40mg and actidione 0.5 mg/ml media), the inoculated media were incubated at 25°C for 2-6 weeks and the growth appeared was identified according to the micro and macrocriteria mentioned in the mycological literature.

Treatment of infected sheep was carried out using fulcin (I.C.I) containing 10% grisofulvin in a dose of 0.5 gm/45 kgs body weight for 10 successive days in their rations. Also intramuscular injection of Vit. A (300,000 unit) was performed once at the begining of Fulcin treatment, samples were collected and examined for detection of mycological recovery by direct microscopical examination and by the culturing methods.

EXPERIMENTAL INFECTION OF LABORATORY ANIMALS

For exploring the pathogenicity of the identified isolates from the collected samples, experimental infection of laboratory animals was tri-ed. Each of the isolated dermatophyte was experimentally inoculated into 2 guinea pigs and 2 rabbits. Hairs and crusts samples were collected and examined by micrscopical and cultural procedures to prove the pathogenicity of the isolates (Malkina, 1967).

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RESULTS AND DISCUSSION

Forty-five sheep out of 300 showed a characteristic lesions of ringworm. The lesions were mostly located on the head especially around ears, eyelids; horns and on the dorsum of the nose. These observations were in agreement with that mentioned by Kielstein and Weber (1965). The most conspicuous symptoms of the disease were loss of hair and formation of white scales. In advanced cases large crusted lesions were formed.

The direct microscopical examination of the collected crust and hair samples revealed that 32 (71.1%) were positive. The result agree to a great extent with the findings of Abd-Elnor (1973). These samples showed orthospores chains and endo or ectothrix hair invasion. Arthrospores were of moderate and large size about 4-10 M in diameter.

On the other hand, Friedman et al. (1961) stated that the absence of microscopic instance of infection among a sample does not mean the absence of infection and cultural results must be considered.

A total of 34 strains (75.5%) of dermatophyte spp. were recovered from the collected samples. As shown in table 1., the most predominant spp. were *T. verrucosum* (44,4%) followed by *T. mentagrophytes* (20%) and *T. terrestre* (11.1%).

The results agree with those of Guilhon and Obligi (1956), Kielstein and Weber (1965) and Abd-Elnor (1973). They reported the isolation of *T. verrucosum* more frequently than *T. mentagrophytes* from cases of sheep ringworm. In the present study, recovery of *T. terrestre* (5 strains) from the diseased sheep represented the first in such case as this fungus was generally considered to be non pathogenic (Ajello, 1972). However it was isolated from skin diseases of man (Reirsol, 1969), cattle (Gupta et al. 1970), dogs (Comnal 1965) and rodents (Otcenask and Drarak, 1965).

Further studies for clearing the role of *T. terrestre* in the mycological infections of man and different animals are recommended.

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The source of infection may be probably originated from soil which is considered to be the most important reservoir of dermatophytes. *T. Verrucosum* was isolated from Egyptian soil (Refai and Miligy, 1968 Atia, 1975).

On the other hand, *T. verrucosum* had been isolated on several occasions from ring worm of cattle and sheep in Egypt (Abdallah et al, 1971, Abd El-nor, 1973, Abougabal and Abdel-Rhiem, 1974). Also, this dermatophyte was recovered from soil samples collected in different countries (Shome, 1963, pchelinsteva, 1966, Abdallah et al, 1977). However, the role of a symptomatic animal carriers as a potential source of dermatophytes (Kamel et al 1977), should be taken in consideration as they reported the occurrence of *T. verrucosum* on skin of apparently healthy animals.

At the end of time treatment, complete recovery of diseased animals was noticed. Mycological examination of all lesions of treated animals were negative either by microscopical examination or by culture method. It is suggested that Vit. A injection and regular daily dose treatment of Fulcin for 10 days were sufficient for eradication of infection.

The experimentally infected laboratory animals showed lesions after 2-3 weeks with the development of local heavy crusty grayish 4 strains for rabbits, 3 for guinea pigs and one for both of them. Out of 5 studied *T. mentagrophytes* isolated, 2 were pathogenic for guinea pigs, 2 for rabbits and one for both of them. Among the tested 5 strains of *T. tresstre*, 3 were pathogenic for guinea pigs and rabbits 2 for rabbits and one was non pathogenic.

The tested strains of dermatophytes were detected in the direct microscopic examination and in pure cultures from the samples collected from the developed lesions.

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Table (1) The isolated dermatophytes from the examined 45 diseased sheep.

Dermatophyte Spp.	Number of isolates.	Percentage
T. verucosm	20	44.4
T. mentagrophytes	9	20.0
T. terrestre	5	11.1
Total	34	75.5

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