

THE OCCURANCE OF SETARIA EQUINA IN DONKEYS EYES & THEIR TREATMENT

(With 1 Fig.)

By

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تواجد ديدان السيتاريا الكوينا الحيه فى عيون الحمير

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عند تشخيص الاصابه بالتهابات العيون فى عدد ١٥ حمار تم العثور على ديدان الفلاريا حيه محدثة حركه سوطيه سريعه وكانت الديدان من نوع ذكور واناث السيتاريا الكوينا مع وجود يرقاتها فى الدم .

تم اجراء محاولة علاج تلك الحالات بعقار الايفوماك (ميرك شارب أنددوم) الذى أعطى نتائج جيده ضد الديدان و يرقاتها فى الدم .

SUMMARY

Fifteen donkeys suffering from continuous lacrimation and ulcerative dermatitis below the nasal canthus were examined. Filarial worms were found in the anterior chamber of the eyes maintaining a rapid whipping movement. These worms were female and male *Setaria equina*. Blood film examination revealed the presence of microfilariae. The treatment of affected donkeys with Ivermectin (M.S.D.) gave good results for both worms and microfilariae.

Keywords: Occurance setaria equina, donkeys eyes, treatment

INTRODUCTION

Setaria equina is a common parasite of equines in all parts of the world. This worm is found in the peritoneal cavity and sometimes in the scrotum. It has also been recorded from the pleural cavity and the lungs of the horse and from the eye of cattle (SOULSBY, 1982). It may also produce different affections of the eye among solipeds manifested by nasolacrimal duct obstructions, continuous lacrimation, dermatitis and conjunctivitis (SELIM & FOUAD, 1965). Furthermore, immature male and female worms have been found in the anterior chamber of the eyes (LOTFIA, 1972). Many trials have been carried out to treat equine filariasis with Stibophen (RAZING, 1976) and Ivermectin for adult *S. equina* and microfilariae of *Onchocerca cervicalis* (KLEI, et al. 1980); as antiparasitic in horses (EGERTON, et al. 1981 & ZEIN EL-ABDIN, et al. 1983) and for scrotum lesions with blood microfilariae due to *S. equina* infestations (ABU EL-MAGD, et al. 1990).

In the present work, the female and male *Setaria equina* have been demonstrated in the eye of fifteen donkeys with the appearance of its microfilariae in blood. Infected animals were treated with Ivermectin (M.S.D.).

MATERIAL & METHOD

Fifteen donkeys with ocular lesions have been taken for clinical examination. They were 8 - 10 years old and were of mixed breeds. The demonstrated worms were extracted surgically and identified according to SOULSBY (1982).

The microfilariae were detected in blood samples obtained from the jugular vein on EDTA as an anticoagulant as recommended by THOMAS (1968) and SALEH (1976). Blood samples were gently mixed and with the help of tuberculin syringe, 0.25 ml of blood was spread along the length of a slide to form a thick blood film, dried, dehaemoglobinized in acid water, air dried, fixed in ethyl alcohol, washed with distilled water and stained with 10% Giemsa stain for 30 minutes (SHUTE, 1966).

The diseased animals were treated with a single subcutaneous injection of 1.0 ml Ivermectin (Ivemec, MSD) per 50 kg body weight. Then, they were clinically and parasitologically examined after 3, 7, 14 & 21 days of treatment according to ABU EL-MAGD, et al. (1990).

RESULTS

Clinical examination of the obtained animals revealed different affections of the eye leading to continuous lacrimation due to worms irritation and obstruction of nasolacrimal duct causing continuous irritation of skin ending with ulcerative dermatitis. In some cases, it was accompanied with conjunctivitis and keratoconjunctivitis. Filarial worms were seen exhibiting a rapid whipping movement subconjunctival in the anterior chamber of the eye causing traumatic inflammation and congestion of scleral capillaries. Identification of the extracted worms revealed that they were adult female and male *Setaria equina*.

Parasitological examination of the peripheral blood of diseased animals proved the presence of microfilariae in great numbers. (Fig. 1)

Once treatment was started a gradual improvement in the general condition of animals was noticed. The clinical symptoms as well as the filarial worms in the eye began to disappear. The worms completely disappeared from the eye after 3 days of treatment. The microfilariae disappeared from the blood after seven days of treatment and remained unnoticeable in the following examinations till the 21st day after application of the drug. Complete cure of the lesions has occurred at the fifteenth day of treatment.

DISCUSSION

In the present study, the clinical manifestation due to the infection with *Setaria equina* in the eye of donkeys was reported. It appeared as continuous lacrimation ending with ulcerative dermatitis and keratoconjunctivitis resembling

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those reported by SELIM & FOUAD (1965) and LOTFIA (1972). In addition, the diseased animals contained *S. equina* microfilariae in their peripheral blood.

After the administration of drug to infected animals their health began to improve similar to the report of KLEI, et al (1980). Also the worms completely disappeared from eyes at the fourth day of treatment and the drug (Ivermectin M.S.D.) gave good results in agreement with EGRETON, et al. (1981) and ZEIN EL-ABDIN, et al. (1983). The microfilariae disappeared from blood seven days from treatment. The same as that reported by ABU EL-MAGD, et al. (1990) for scrotal affection.

Our study pointed out that, *Setaria equina* could affect donkey eye with serious lesions and releasing of microfilariae in blood. This affection could be treated with Ivermectin (M.S.D.) which gave good results for both worms and microfilariae.

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Fig. 1: Microfilariae of setaria equina
in a stained blood film