CLINICOPATHOLOGICAL EFFECTS IN A SUDANESE GOAT FOLLOWING MASSIVE NATURAL INFECTION WITH COENURUS GAIGERI CYSTS

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SUMMARY

Natural massive infection with Coenurus gaigeri cysts in the muscles particularly of the thighs, hips and shoulders of a goat resulted in a progressive failure of locomotion that led to recumbency.

INTRODUCTION

The adult parasite Multiceps gaigeri has been identified in the intestines of the dog and was described by Hall (1916). Its close relatives, Multiceps muticus and Multiceps serialis, were identified in the intestinal environment of the dog by Block (1779). Coenurus gaigeri (the intermediate stage of Multiceps gaigeri) is of rare occurrence (Soulsby, 1968) and hence there was no traceable record in the literature of its pathogenicity.

The present report, however, describes the clinical signs and pathological effects in a goat naturally infected with numerous cysts of Coenurus gaigeri.

MATERIALS AND METHODS

History—In September 1972, a six-month-old female goat kid, weighing approximately 12 kg, was presented for examination to one of us (R.O.R.), with swellings in the regions of the shoulders and the thighs, said to be of slow onset with gradual interference with locomotion. The owner reported that the dam had shown similar lesions before death.

Clinical findings—Clinical examination revealed a dull non-pyrexic animal with pallor of the mucous membranes. Bilateral swellings, variable in size, were localized in the muscles of the shoulders and thighs (Fig. 1) and not below the elbow or the stifle joints. The swellings were less sensitive than the surrounding healthy tissue, fluctuating and cool and the bald skin over them was tense. A few swellings were seen in the left thoracic wall while others were found in the muscles of the lower jaw. There was shortening of the forward stride, lameness, stiffness and arching of the back. Sensitivity of both hind limbs was reduced to such a degree that tickling of the region between the coronets and the stifle joints brought no reaction.

The following day the animal was unable to rise and was found in a dog-sitting position with the hind limbs extended anteriorly in a helpless position. Two days later there was marked dullness, loss in condition, laboured breathing and finally lateral recumbency.

Diagnosis—The application of an exploratory puncture to one of the swellings in the region of the thigh revealed a serous fluid which was found to contain whitish deposits.

Surgical operation—The animal was premedicated with chlorpromazine at a dose rate of 1 mg/kg body weight. Epidural anaesthesia was achieved by administering 0.5 ml of a 2.5 per cent tutocaine solution in the lumbosacral space. Seven cystic swellings were removed from the right lateral aspect of the thigh. The swellings were distributed as follows: One, on the anterior aspect of the neck of the femur and adhering to the point of insertion of the gluteous medius muscle under cover of and partially embedded in the biceps femoris, another on the posterior aspect of the neck of the femur, one, at the middle of the femur between the biceps muscles, one, on the anterior aspect of rectus femoris and covered by the biceps...
INFECTION WITH COENURUS GAIGERI CYSTS

Fig. 1. Numerous *Coenurus gaigeri* cysts in the muscles of the thigh, chest and shoulder.

Fig. 2. *C. gaigeri* cyst collected from animal surrounded by connective tissue.