

FURTHER OBSERVATIONS RELATING
TO *TRIXACARUS (CAVIACOPTES) CAVIAE* FAIN,
HOVELL AND HYATT, 1972 IN GUINEA-PIGS
(ACARINA: SARCOPTIDAE)

W.P. BERESFORD-JONES (1), A. FAIN (2) and K.L. THODAY (3)

(Received for publication on 27th June 1975)

FAIN, HOVELL and HYATT (1972) described *Trixacarus (Caviacoptes) caviae*, a new species of Sarcoptidae (Acarina) producing mange in guinea-pigs. This mite was isolated from a colony of albino guinea-pigs (*Cavia porcellus*) kept in a laboratory in Oxford. It has now been established that this mite has a wider distribution among guinea-pigs and an account is given of three further cases in which sarcoptic-type mange was reported and the above mite isolated from each individual animal.

Case No. 1. A gold male guinea-pig, aged 7 months, was submitted to the Royal Veterinary College Clinic (University of London), London, England. This guinea-pig which came from Sunbury-on-Thames, Middlesex, England, was the progeny of a pair which had both shown symptoms of severe pruritus with marked scaling and alopecia along the skin of the back. Treatment by the veterinary surgeon with parasiticides, corticosteroids and antibiotics produced no improvement and one guinea-pig died whilst the other was destroyed. Laboratory examination of skin scrapings revealed no evidence of ectoparasites. Seven months later similar lesions to those in the parents appeared on the off-spring (Case No. 1) and the animal was referred to the College for investigation.

The guinea-pig was hospitalised and a deep skin scraping from the back yielded mites suggesting sarcoptic mange. The guinea-pig died shortly after admission and was submitted to post-mortem examination. Further skin scrapings by one of us (W.P.B.-J.) confirmed sarcoptic-type mange associated with a mite which could not be assigned to the Genus *Sarcoptes*. Similar material was sent to the British Museum (Natural History), London, England and to one of us (A.F.) who confirmed the presence of the mite *Trixacarus (Caviacoptes) caviae* FAIN et al.

Case No. 2. A black and gold English female guinea-pig, aged 2 years 3 months, was submitted for examination to one of us (K.L.T.) because of a skin

(1) Pathology Department, The Royal Veterinary College, London, England.

(2) Institut de Médecine Tropicale, Antwerp, Belgium.

(3) 13, Carlton Avenue East, Wembley, Middlesex, England.

condition. This guinea-pig was one of a litter of three bred in Edgware, Middlesex, England and the sow, an albino, had a history of mild dermatitis but the presence of sarcoptic mite infestation was not confirmed. Nevertheless it was treated successfully with a gamma benzene hexachloride shampoo. (4)

The patient (Case No. 2) had a history of pruritus, excessive scale formation and alopecia, which had initially involved the hind quarters but which had recently become generalised. On examination the animal appeared alert. There was a patchy alopecia involving the neck, abdomen and hind legs, and hair in these areas could easily be removed. Large quantities of scale were noted in the coat particularly along the dorsum and around the face, where it was present in masses which could be removed with difficulty, leaving areas of moist dermatitis.

Hair and skin were scraped from the face region and after treatment with 5 % potassium hydroxide solution found to contain the mite *Trixacarus (Caviacoptes) caviae* FAIN et al. Additional material was sent to the British Museum (Natural History), London, England and to one of us (A.F.) who confirmed the presence of this mite. The guinea-pig was bathed twice with a shampoo containing gamma benzene hexachloride. The symptoms quickly subsided and during a follow-up period of seven months there has been no recurrence.

Case No. 3. Two red and white English female guinea-pigs, aged 2 years, were submitted for examination to one of us (K.L.T.) for the investigation of a skin condition. They had been obtained at 6 weeks of age from a litter bred at a school in Wymondham, Norfolk, England. The sow had never shown evidence of skin lesions.

The animals were bright and alert on examination but showed marked pruritus. The hair was thin on the flanks, ventral thorax, abdomen and the hind legs. Small amounts of scale were present in these areas and the hair was brittle and easily removed. Scrapings of skin and hair from the affected parts were treated with 5 % potassium hydroxide solution, and after a careful search of the treated material microscopical examination revealed a few mites of *Trixacarus (Caviacoptes) caviae* FAIN et al. The condition was treated with a shampoo containing gamma benzene hexachloride and the symptoms quickly resolved.

Conclusions. Sarcoptic mange due to *Trixacarus (Caviacoptes) caviae* FAIN et al. has previously only been reported in guinea-pigs kept under laboratory conditions. The three cases described show that the condition has a more wide-

(4) Quellada - Stafford Miller.

spread distribution and can be found in isolated animals from different geographical areas of England. It is difficult to trace the source of the original infestation in some cases as the incubation period seems to be long. The clinical symptoms in all cases so far reported have followed a constant pattern of pruritus, alopecia and scaliness. Confirmation of the diagnosis must be made by examination of skin scrapings but in the early developmental stages isolation of the mite may prove difficult. The predisposing factors and the mode of transmission of the disease need to be investigated further.

ACKNOWLEDGEMENTS

We are grateful to Miss B. BREWSTER and Mr. K.H. HYATT, British Museum (Natural History), London, England, for their help in identifying mites taken from Cases Nos. 1. & 2. Our thanks are also due to Mr. Oliver GRAHAM-JONES, F.R.C.V.S. Department of Medicine, Royal Veterinary College, London, England, for the clinical data in Case No. 1, and to Mr. M.C. TURNER, B.V.Sc., M.R.C.V.S., for his help with the treatment of Case Nr. 2.

SUMMARY

Three cases of sarcoptic mange in guinea-pigs were found to be due to *Trixacarus (Caviaoptes) caviae* FAIN et al. The history and lesions of each case are described together with a method of treatment.

RESUME

Trois nouveaux cas de gale sarcoptique produits par *Trixacarus (Caviaoptes) caviae* FAIN et al., sont décrits chez le cobaye dans deux nouvelles régions d'Angleterre. Cette découverte étend la distribution de ce parasite et fait supposer qu'il existe probablement aussi dans d'autres pays mais qu'il n'y est pas diagnostiqué.

SAMENVATTING

Drie nieuwe gevallen van sarcoptisch schurft veroorzaakt door *Trixacarus (Caviaoptes) caviae* FAIN et al., worden beschreven bij cavia in 2 nieuwe streken van Engeland. Deze nieuwe vindplaatsen van het parasiet laat vermoeden dat de

verspreiding ervan groter is dan aanvankelijk gedacht en het is waarschijnlijk dat het ook in andere landen voorkomt maar tot hertoe niet klinisch vastgesteld is.

REFERENCES

- FAIN, A., HOVELL, G.J.R., and HYATT, K.H. (1972) : A new sarcoptid mite producing mange in albino guinea-pigs. Acta Zool, pathol. antverp. 56, 73-82.