

The Chimpanzee (*Pan troglodytes*), a new host for nymphal *Armillifer armillatus* (*Pentastomida* : *Porocephalida*) in West Africa

by R. A. OGUNSUSI and A. N. MOHAMMED (*)

RÉSUMÉ

Le chimpanzé (*Pan troglodytes*), nouvel hôte de la nymphe d'*Armillifer armillatus* (*Pentastomida* : *Porocephalida*) en Afrique occidentale

Armillifer armillatus au stade de nymphe ont été trouvées encapsulées dans les organes d'un chimpanzé captif du zoo de l'Etat de Kano.
Le chimpanzé est signalé comme nouvel hôte dans cette région.

INTRODUCTION

The phylum *Pentastomida* consists of a group of aberrant arthropods whose adults are found in the lungs of various reptiles as well as in air-sacs of certain birds (5). The immature stages have been extracted from a large variety of domestic and wild mammals (11). The nymphal stage of *Armillifer armillatus* has been found capable of developing in well over 81 species of animals including avians and mammals.

In West Africa, the occurrence of *A. armillatus* has been reported in cats in Senegal and Nigeria (6, 10), in bovine and swine in Mali and Upper Volta (4) and in humans (8, 3, 9, 1, 7).

In this report, it is found that also the Chimpanzee can harbour the nymphal stage of this pentastome.

MATERIAL AND METHODS

Specimens of liver, lung and mesentery from the cadavre of a young captive female black chimpanzee were sent to our Laboratory from the Kano State Zoological Garden.

The Chimpanzee had been captured wild and handed over to the Zoo Garden by a local hunter. After going through a 4-week quarantine, the Chimpanzee was introduced into a large cage together with 3 others. During the period at the Zoo, they were fed with cassava, bananas, oranges, cucumber and pawpaw. In less than half a year at the Zoo, the young Chimpanzee fell sick. It became progressively cachectic, apathetic and listless. A greenish diarrhoea was initially observed which later became blood-tinged. Nasal discharges were most prominent as the sickness advanced and the chimp ultimately died.

RESULTS

On inspection of the organs, several yellowish-white organisms, surrounded by translucent membranes were seen. These were coiled in the parenchyma of the liver, and the lung and several were in fibrous capsules attached to the mesentery.

Closer examination on the dissecting microscope revealed 20 pronounced annulations on each of the organisms and an oral orifice was located on the ventral surface close to the anterior tip, flanked laterally by a pair of recurved hooks. These organisms were identified as nymphs of *Armillifer armillatus*.

(*) Faculty of Veterinary Medicine, Ahmadu Bello University, Zaria, Nigeria.

DISCUSSION

Intermediate hosts for *A. armillatus* as is the case with this chimpanzee get the infection either by consuming an infected snake, or food and water which have been contaminated with the snake's faeces (2). It is most probable that the chimpanzee brought the infection from its original wild habitat since none of the other 3 chimpanzees living in the same cage with the deceased one showed any sign of infection.

The public health importance of this pentastome can be significant especially in localities where apes are eaten by humans.

This finding in a zoo chimpanzee adds yet another host on record in the West of Africa.

Although *A. armillatus* has not yet been reported in chimpanzee, its occurrence in this host is not unexpected considering its wide host range.

SUMMARY

Nymphal stages of *Armillifer armillatus* were found encapsulated in the organs of a captive chimpanzee from the Kano State Zoo. The Chimpanzee is recorded as a new host in this region.

RESUMEN

El chimpancé (*Pan troglodytes*), nuevo huésped de la ninfa de *Armillifer armillatus* (*Pentastomida* : *Porocephalida*) en África del oeste

Se encontraron ninfas de *Armillifer armillatus* enquistadas en los órganos de un chimpancé cautivo del zoo del estado de Kano.

Se señala el chimpancé como un nuevo huésped en esta región.

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