

BIZARRE FORMS OF THE AETIOLOGIC AGENT IN EXPERIMENTAL JORGE LÔBO'S DISEASE IN TORTOISES

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SUMMARY

This report refers to the results obtained five months after the subcutaneous inoculation of the aetiologic agent of Jorge Lôbo's disease into certain species of tortoises (*Geochelone denticulata*, *Geochelone carbonaria* and *Kinosternon scorpioides*) from the Amazon Region of Brazil. The nodules were 3 to 5 mm in diameter and were composed of histiocytes and giant cells which contained numerous fungi. In a five month old lesion of one tortoise (*G. denticulata*) there were "bizarre" forms which were morphologically identical with those previously described from man, although only typical fungal forms were seen in the human donor material.

INTRODUCTION

SAMPAIO et al.⁴ described successful experimental infections of Jorge Lôbo's disease in the cheek-pouch of the golden hamster (*Mesocricetus auratus*).

Bearing in mind the fact that the disease apparently develops more readily in the cooler areas of the human body, the Authors decided to inoculate the aetiologic agent of Jorge Lôbo's disease into some cold blood animals, in the hope that they would prove to be more susceptible than hamsters.

MATERIAL AND METHODS

Material for the experimental inoculations was obtained from a biopsy of a patient with Jorge Lôbo's disease, who had a recurrent nose lesion excised six years ago (Case 3 of the original report of LEITE³).

The sample was divided into small pieces and these were implanted with the help of a 15 gauge needle, under the dorsal and ventral skin of the cloaca, into six "jabotis" (3 *Geochelone denticulata*, 3 *Geochelone car-*

bonaria), which are strictly terrestrial, and under the skin of the front legs of ten "muçuãs" (*Kinosternon scorpioides*), amphibians. These three species of tortoises are from the Amazon Region of Brazil.

The animals were killed at intervals of one month. One "jaboti", and three "muçuãs" were left to be sacrificed one year after inoculation.

RESULTS

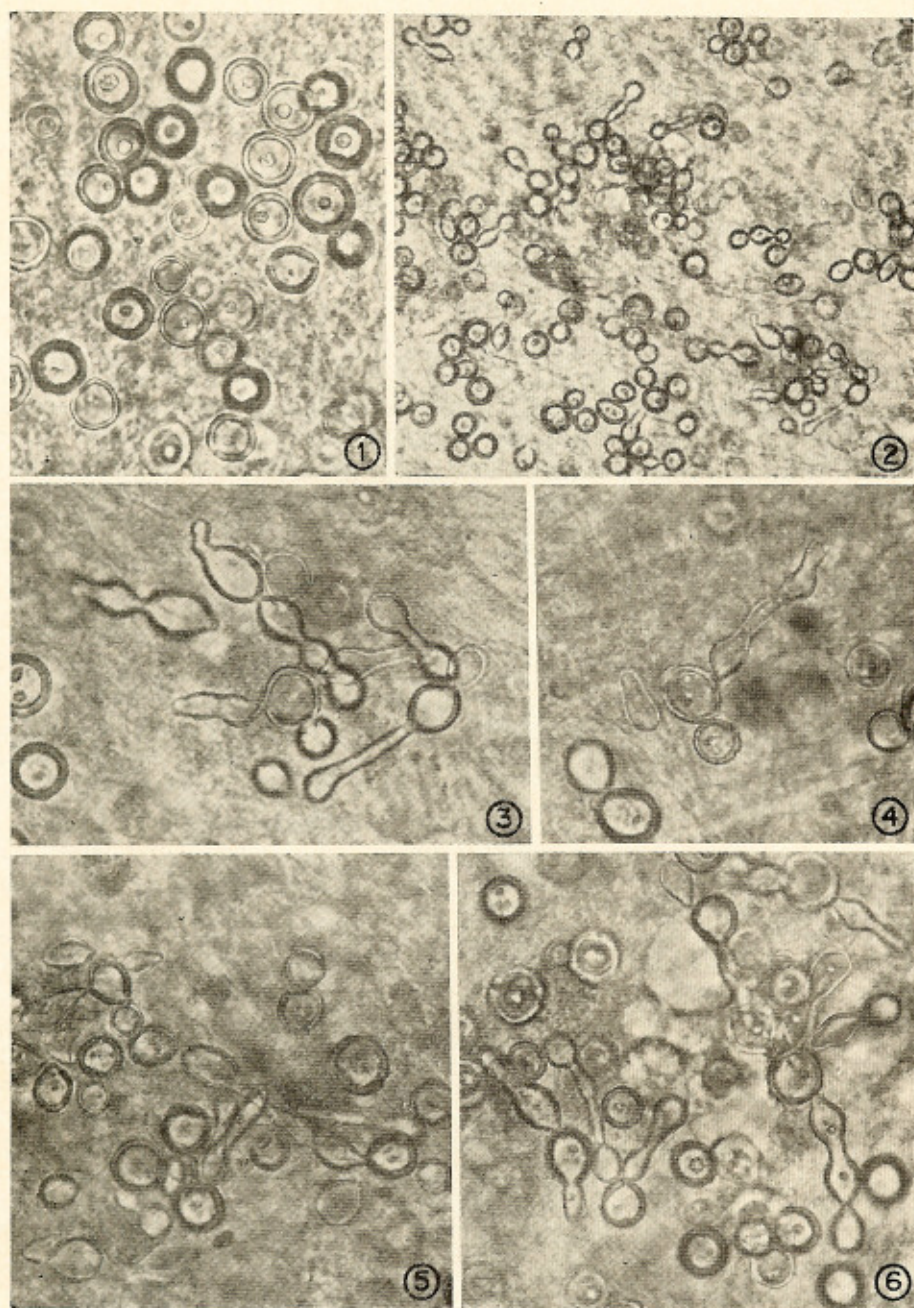
The lesions produced in tortoises were similar to the original human lesions, being basically granulomas with histiocytes containing one or more fungi. Fibroblasts and giant cells harboring one or more fungi were also present. The granulomas were not confined to the connective tissue of the skin but were also found among deeper striated muscle fibers. All lesions had pockets of free fungi capsules that were enclosed by collagen fibers.

The most conspicuous lesion was found in a tortoise five months after implantation: along with the common "yeast" forms

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Figs. 1-6 — Squashed nodule of experimental inoculation of Jorge Lôbo's fungus. Not strained. 1) "Yeast" form of fungus in a "muçua" (*K. scorpioides*). 640 x. 2) "Yeast" and "bizarre" forms in a five month old lesion in "jaboti" (*G. denticulata*). 320 x. 3) Detail of Fig. 2. 800 x. 4) Detail of Fig. 2. 720 x. 5-6) Detail of Fig. 2. 640 x.

(Fig. 1) there were also some "bizarre" forms (Figs. 2-6) identical to those described by DIAS et al.², from a human case of Jorge Lôbo's disease.

DISCUSSION

After many attempts to produce experimental infections of Jorge Lôbo's disease, SAMPAIO et al.⁴, have apparently obtained good results by inoculating its aetiologic agent into the cheek-pouch of the golden hamster (*Mesocricetus auratus*).

The present experiments show that chelonia ("jabotis" — *G. denticulata*, *G. carbonaria* and "muçuãs" *K. scorpoides*) are apparently more susceptible than hamsters to infection with Jorge Lôbo's disease. The appearance of the lesions five months after inoculation in one *G. denticulata* was very similar to those seen in man. There were abundant parasites and their morphology corresponded to that seen in material from human lesions.

Recently AZULAY et al.¹, described elongated forms which resemble those described by DIAS et al.² in man, and the ones discussed in the present paper, from tortoises.

It seems likely that the inoculation of tortoises offers a better means of cultivating the aetiologic agent of Jorge Lôbo's disease in the laboratory than any other method yet described.

RESUMO

Formas bizarras do agente etiológico, na Doença de Jorge Lôbo experimental em jabotís

O presente trabalho refere-se aos resultados obtidos nos primeiros 5 meses de observação de inoculações subcutâneas do agente etiológico da Doença de Jorge Lôbo em três espécies de quelônios, "jabotís" e "muçuãs", da Amazônia Brasileira (*Geochelone*

denticulata, *Geochelone carbonaria* e *Kinosternon scorpoides*). Os nódulos mediam de 3 a 5 mm de diâmetro e eram constituídos de histiócitos e células gigantes contendo um ou mais fungos. Numa lesão datando de 5 meses de um "jaboti" (*G. denticulata*) encontraram-se formas "bizarras" do fungo, morfológicamente idênticas às descritas anteriormente em um caso humano, embora somente formas típicas do fungo estivessem presentes no material humano usado na experiência.

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