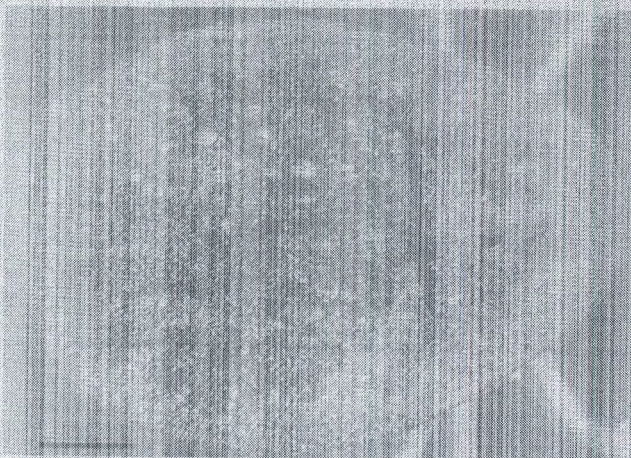


ISSN 0872-5292

ACTA PARASITOLÓGICA PORTUGUESA



Revista da
*Sociedade Portuguesa
de Parasitologia*

<i>Acta Paras. port.</i>	Vol. 11	n.º 1/2	pgs. 1-62	2004
--------------------------	---------	---------	-----------	------

ACTA PARASITOLÓGICA PORTUGUESA

Revista da

Sociedade Portuguesa de Parasitologia

Acta Paras. port. | Lisboa | Vol. 11 | nº 1/2 | pgs. 1-62 | 2004

Director: *Prof. Manuel Carvalho-Varela*

Editor: *Prof. A. J. dos Santos Grácio*

Edição e Propriedade da

Sociedade Portuguesa de Parasitologia

Instituto de Higiene e Medicina Tropical
Universidade Nova de Lisboa
Rua da Junqueira, 100, 1349-008
Lisboa - Portugal
E-mail: gracioent@ihmt.unl.pt

ISSN 0872 - 5292

Tiragem: 200 exemplares.

Composição:

Sociedade Portuguesa de Parasitologia

Impressão:

Gráfica 99
Rua da Academia de Ciências 7-Anexo
1200-003 Lisboa

Sempre presentes, Amigos!

- *Prof. João Fraga de Azevedo*
- *Prof. Silva Leitão*
- *Prof. Francisco Cambournac*
- *Prof. Travassos Santos Dias*
- *Prof. João Tendeiro*
- *Dr. Borges Ferreira*
- *Dr. Domingos da Rocha Mendes*

Comissão Científica:

- Prof. A. J. dos Santos Grácio (IHMT-UNL, Lisboa-Portugal)*
Doutor A. J. Shelley (D. Ent., Nat. Hist. Mus., London, U.K.)
Prof. Aurélia Saruiva (FC - UP, Porto - Portugal)
Prof. Carlos Azevedo (ICBAS - UP, Porto - Portugal)
Doutor David Rollinson (DZ, Nat. Hist. Mus., London, U.K.)
Prof. Francisco Antunes (FM-UL, Lisboa - Portugal)
Prof. Francisco Rojo-Vásquez (U. León - España)
Prof. Henrique Ribeiro (IHMT-UNL, Lisboa-Portugal)
Prof. Isabel Fazendeiro (FMV-UTL, Lisboa-Portugal)
Doutor Joachim Richter (CU, U. Dusseldorf, Germany)
Prof. Jean Bussièras (France)
Prof. J. A. Cruz e Silva (FMV-UTL, Lisboa-Portugal)
Prof. Jorge Eiras (FC - UP, Porto - Portugal)
Prof. Lenea Campino (IHMT-UNL, Lisboa - Portugal)
Prof. Lucília Ferreira (FMV-UTL, Lisboa-Portugal)
Prof. Luís Cardoso (UTAD, Vila Real - Portugal)
Prof. Manuel Carvalho-Varela (FMV-UTL, Lisboa-Portugal)
Prof. Manuela Rodrigues (UTAD, Vila Real - Portugal)
Prof. Marcelo Jacobs-Lorena (JHI, Baltimore, USA)
Prof. M. Cordero del Campillo (U. León, España)
Prof. Maria Amélia Grácio (IHMT-UNL, Lisboa - Portugal)
Prof. Olga Matos (IHMT-UNL, Lisboa - Portugal)
Prof. Palmira Rombert (IHMT-UNL, Lisboa - Portugal)
Prof. Pedro Abranches (IHMT-UNL, Lisboa - Portugal)
Prof. Poares da Silva (FF-UC, Coimbra-Portugal)
Prof. Rui da Costa Pinhão (IHMT-UNL, Lisboa - Portugal)
Prof. Victor Manuel Paes Caciro (UE, Évora - Portugal)
Prof. Virgílio E. do Rosário (IHMT-UNL, Lisboa - Portugal)

NEUROCYSTICERCOSIS - THE FIRST DOCUMENTED CLINICAL CASE IN MOZAMBIQUE.

M. Santos^a, M. Vilhena^b, M. Prazeres^a, V. C. W. Tsang^b,
P. M. Schantz^c & J. Torgal^{b,d}

RESUMO

Sendo a neurocisticercose endémica nalguns países de África, até hoje, em Moçambique, não se tinha registado qualquer caso clínico. Neste trabalho apresentamos o primeiro registode um caso clínico de neurocisticercose em Moçambique, onde julgamos que esta doença é subavaliada.

ABSTRACT

Neurocysticercosis is claimed to be endemic in some African countries. However no clinical case has been documented in Mozambique until now. We report the first clinical case of human neurocysticercosis in Mozambique, where we suspect that this disease is under-recognised.

INTRODUCTION

In Mozambique cysticercosis in pigs has been noted in the past years, but not well documented now, because of a lack of systematic information from slaughterhouses [1,2,3]. However, *Taenia solium*, the cause of this disease is endemic in some neighbouring countries, where the cysticercosis in humans is well-documented [3]. Neurocysticercosis is claimed to be endemic in some African countries. However no clinical case has been documented in Mozambique until now. We report the first clinical case of human neurocysticercosis in Mozambique, where we suspect that this disease is under-recognised and a problem of public health.

CASE REPORT

We present a clinical case of neurocysticercosis in a black female nurse, aged 32, born in Murrupula, Nampula

Province, North of Mozambique. She has always lived in Nampula Province.

She had arrived in Maputo to attend a professional course, when she developed her first jacksonian epileptic seizure, which lasted for 30 minutes. The seizure started with her right hand and progressed to posterior generalisation with bladder incontinence. The patient was admitted on 1997-05-22 to Hospital Central de Maputo where she developed another seizure with similar characteristics. After recovering consciousness, she indicated that she had aches and weakness of the right limbs. She underwent a full neurological examination, serum biochemical and haematological profiling and a cranial CT scan without contrast. There was no previous clinical history of epilepsy.

Apart from a right central hemiparesis, grade 3/5, physical examination was normal. Initial investigations showed a white cell count of $13 \times 10^9/L$ and eosinophil count of 21%. Other physical examination and electroencephalography were normal.

She had suffered from headaches during the previous 10 years and had noticed proglottids in her stools between 1981-1987. The patient has an adult brother who was diagnosed with epilepsy. An epidemiological investigation showed that her family usually reared pigs.

Her CT scan showed numerous calcified parenchymal lesions and several apparently viable cysticerci (figure 1).

She was given praziquantel (50 mg/Kg per day, for 15 days) and concurrent prednisolone (2mg/Kg). The patient had five other episodes over two year's follow-up.

The result of the immunoelectrotransfer blot assay (EITB) [4] to detect specific antibodies to *Taenia solium* cyst antigens in a serum sample from this Mozambican neurologic patient was strongly positive.

DISCUSSION

Humans are the only known host for the adult *Taenia solium*. Humans are infected when they eat undercooked meat of pigs (the most common intermediate host) infected with larval cysts. Eggs may be ingested in food or water that has been contaminated with human faeces or through a variety of other means of fecal-oral contact. When the intermediate host is a

- a) Hospital Central de Maputo, Maputo, Mozambique
- b) CISCOS - Centro de Investigação em Saúde Comunitária - Lisboa - Portugal
- c) CDC - Division of Parasitic Diseases, National Center for Infectious Diseases, Center for Disease Control - Atlanta - USA
- d) Universidade Nova de Lisboa - Faculdade de Ciências Médicas - Dept. de Saúde Pública - Lisboa - Portugal

human, the larval stage of the parasite lodge in different tissues but the most clinically important presentation is neurological - neurocysticercosis. Usually the most common presentation is epilepsy, which is mainly generalised tonic-clonic seizures, but also can be partial simple or partial complex seizures.

In different studies conducted in Africa, the reported prevalence of cysticercosis in epileptic patient's varied from 5.5 to 50.9 % [3]. Almost every country bordering Mozambique has human cysticercosis reported: South Africa, Zimbabwe, Tanzania and Madagascar. The first serological (ELISA) study carried out at a hospital in Mozambique found an overall rate of 12,1% (59 of 489) [2].

We suspect that cysticercosis in humans is under-recognised in Mozambique. Sensitive diagnostic imaging technology, such as CT scans, are expensive and not used for the majority of the population of patients with symptoms suggestive of cysticercosis. Specific immunodiagnosis is not yet available in Mozambique. After the advent of the war (1982-1992), a larger number of refugees from the rural areas have migrated to the large cities, where sanitary infrastructures are inadequate. The potential epidemiological risk of spreading the disease in urban areas is great and should be considered.

by the medical authorities. In Mozambique the diagnosis of cysticercosis should be considered in persons with seizures and other neurologic symptoms.

REFERENCES

1. CRUZ e SILVA, J., 1971. Contribuição para o estudo dos helmintes parasitas dos vertebrados de Moçambique. *Mem. Junta Inv. do Ultramar*, 2ª série, **61**: 165-176.
2. VILHENA, MMC, BOUZA, M., 1994. Serodiagnóstico de cisticercose humana na Cidade de Tete - Moçambique. *Rev Méd de Moçambique*, **5**: 6-9.
3. VILHENA, M., SANTOS, M. & TORGAL, J., 1999. Seroprevalence of human cysticercosis in Maputo, Mozambique. *Amer J Trop Med Hyg*, **61**: 59-62
4. PREUX, PM. *et al.*, 1996. Cysticercosis and neurocysticercosis in Africa: current status. *Neurol Infect Epidemiology*, **1**: 63-68.
5. TSANG, V.C.W., BRAND, J.A. & BOYER, A.E., 1989. An enzyme-linked immunoelectrotransfer blot assay and glycoprotein antigens for diagnosing human cysticercosis (*Taenia solium*). *J. Inf. Dis.*, **159**: 50-59.