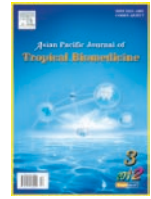


Contents lists available at [ScienceDirect](http://www.sciencedirect.com)

Asian Pacific Journal of Tropical Biomedicine

journal homepage: [www.elsevier.com/locate/apjtb](http://www.elsevier.com/locate/apjtb)

Document heading

doi:

©2012 by the Asian Pacific Journal of Tropical Biomedicine. All rights reserved.

## Imaging suggestive of Pentosomiasis of lung in the forest region of Guinea in West Africa

Bafende Aombe Eric. ,Guilavogui Agathe., Kolié Cece.

*The Medical Centre of Mission Philafricaine at Macenta ,in Guinea (West Africa)*

### ARTICLE INFO

#### Article history:

Received 22 September 2012

Received in revised form 27 September 2012

Accepted 19 October 2012

Available online 28 December 2012

#### Keywords:

Pentosomiasis

Guinea

West Africa

### ABSTRACT

The authors are reporting the first case of Human pentastomiasis in the forest region of Guinea in West Africa. The 52 years old man Guinean farmer has a history of eating snakes. The authors recommend to cook well snake before consumption and a moderation on the snake consumption.

## 1. Introduction

Pentastomiasis is a zoonotic infection due to pentastomose, an unusual group of vermiform parasites which inhabits the respiratory tracts of snakes and reptiles. Wyman was the first to identify the parasite in the nasopharynx of the African Python in 1848 [1]. Human pentastomiasis was first reported by Pruner in Cairo in 1847 [1]. It is prevalent in West and central Africa [2] and Asia [3]. There is no published cases on Human pentastomiasis in Guinea in West Africa although populations who live in the forest region eat snakes regularly. The authors are reporting the first case of Human pentastomiasis suggested by the radiological finding.

## 2. Case report

The authors report a case of human pentastomiasis in a 52 years old Guinean farmer in the forest region of Guinea in West Africa. The patient came on October 4th 2011 at the medical Centre of Mission Philafricaine, located at Macenta in the forest region of Guinea in West Africa at 800km

south–west of Conakry.



**Figure 1** .Characteristics calcification in the lung suggesting

\*Corresponding author: Dr Eric Bafende Centre Médical de la Mission Philafricaine de Macenta BP 214 Conakry 1 République de Guinée West Africa  
E-mail: [eric.bafende@sam-ame.org](mailto:eric.bafende@sam-ame.org)

The patient complained of cough with sputum without fever during 5 weeks

He has a story of consumption of snake meat for decade. Physical examination and extensive laboratory tests failed to reveal any significant abnormalities. The diagnosis was made incidentally by the imaging shown on the chest x ray of the patient with the characteristics calcification of the lung (Figure 1)

The x ray of chest performed on October 6th 2011 showed multiple calcifications in the lung highly suggestive of the calcified dead larvae of *Armillifer Armillatus*.

### 3. Discussion

The consumption of undercooked contaminated snake meat likely plays a major role in transmission of pentastomes ova to human. In West Africa it has also been associated with groups who use the snake as a totem [4]. There are more than 70 species of pentastomes but only 2 species can be recognized radiologically: *Armillifer Armillatus* in Africa and *Armillifer Moniliformis* in South Asia.

Humans are only ever an accidental intermediate host for *Armillifer*, i.e. the larvae establish themselves in the visceral organs causing human visceral pentastomiasis, but adults do not occur in the human respiratory system. After a while the larvae die within the host and sometimes calcify, leaving characteristic crescent-shaped structures seen in X-ray

The x ray chest shows multiple calcified, coiled and c shaped nymphs within the lung and pleura. Some of nymphs appear rectilinear in outline because they are seen end on.

The differential diagnosis calcified cysts of cysticercosis is easy: the calcified nymphs of *Armillifer* have a distinctive shape and are not found in muscle [5,6]. Occasionally, the

disease can be fatal [7]. There is no treatment, the only option is to prevent the disease by washing hand while you manipulate snakes, by cooking well snake before the consumption.

### Conflict of interest statement

We declare that we have no conflict of interest.

### References

- [1] Cannon DA. Linguatid Infestation of Man. *Annals of Tropical Medicine*, Vol. 36, No. 4, Dec. 1942. pp. 160 – 167.
- [2] Plessis VD, Birnie AJ, Eloff I, Reuter, Andronikou S. Pentastomiasis (*Armillifer armillatus* infestation). *South African Medical Journal* 2007 **97**: 928–930.
- [3] Yao MH, Wu, Tang LF. Human pentastomiasis in China: case report and literature review. *Journal of Parasitology* 2008 **94** (6): 1295–1298
- [4] Dakubo JCB, Naaeder SB, Kumodji R. Totemism and the Transmission of Human Pentastomiasis. *Ghana Medical Journal*. 2008 **42** (4): 165–168.
- [5] Bretland PM. *Armillifer armillatus* infestation. Radiological diagnosis in two Ghanaian soldiers. *Br J Radiol*. 1962 Sep;**35**:603–608.
- [6] Ibinaiye PO, Dauda MM, Damisa KL. Porocephalosis due to encysted *Armillifer* nymph presenting as an acute abdominal emergency: case report and review of literature. *Niger Postgrad Med J*. 2011 Sep;**18**(3):217–9.
- [7] Latif B, Omar E, Heo CC, Othman N, Tappe D. Human pentastomiasis caused by *Armillifer moniliformis* in Malaysian Borneo. *Am J Trop Med Hyg*. 2011 Nov;**85**(5):878–81.