

Case Report

An Extremely Rare Situation - Subcutaneously Filariasis Presented at ED Craiova

LUCIANA ROTARU¹, C.ȘERBAN²

¹ Emergency Medicine and First Aide Department, University of Medicine and Pharmacy Craiova, Emergency Department - SMURD University County Hospital Craiova

² Emergency Department - SMURD University County Hospital Craiova

ABSTRACT: A 32 year old male patient presented to the ED Craiova with migratory, burning pain, to the right cervical and left upper eyelid. Sudden, transient, bilateral knee swelling six months ago. An inflammatory trace and a renitent cord can feel at this level, with spontaneous mobility. A microfilaraemic parasite was surgically extracted from upper eyelid. Mobility of the parasite was the key element of an extremely quick and easy diagnosis for a very rare disease but the specific circumstances of the contamination remains unclear. Even uncommon, multiple determinations are possible requiring systematic and long term investigation and medical surveillance.

KEYWORDS: filariasis, loa – loa, eye worm, tropical disease

Introduction

Filariasis is a unusual parasitic disease in Romania, last known report (a case of lymphatic filariasis) dating from 2005, and in the entire world is rare too, excluding Western Africa [1]. Therefore, suspicion of a such disease, especially in the emergency department is extraordinary and may seem to require a very specialized assessment, including the specific circulating antigens determination [2] and extended performance imaging examination.

Case report

We present a male patient case (32 years old) admitted in ED - County Hospital Craiova (S- W Romania region) with migratory burning pain, initially in the right cervical area, then on the left frontal and upper orbital area, temporal, and the left upper eyelid, irritation, pruritus and swelling. Apparently, the onset of symptoms was a few day, but six months ago he accused sudden, transient, both knee swelling, local pain, functional stiffness, with spontaneously remission after three days.

Discussions

The patient was classified as a green emergency triage priority, being assigned on the consultation area.

At the starting point, the first diagnostic suspicion was represented by trigeminal neuritis, being also consider a conjunctivitis.

The local examination provided by the emergency physician identified an inflammatory trace of 10 cm. length, at left frontal and temporal level. On the left upper eyelid it can

feel an elastic and renitent cord with spontaneous and induced by palpation mobility. At that moment a parasite illness was taken into account. The eye examination was normal, and seeing was not affected.

By surgical excision on the left upper eyelid a microfilaraemic parasite of 17 cm. length has been extracted (Fig.1) and that seemed to be filaria. Biological material was sent to the parasitological laboratory for specific identification of type, suspicion beings loa – loa (confirmed). Considering the dimensions of the parasite, the estimated age of the infection has been approximate at 1 year.



Fig.1. The parasite

The patient was subsequently taken over by the department of infectious diseases, for further investigation and therapy (doxycycline, nonsteroidal anti-inflammatory therapy and albendazol)

No other subcutaneous determination or any clinical element identified as lymphatic damages

has found, given that this type of damage is common in filariasis [3].

Cranial CT examination has not revealed the presence of any other determination.

Later, the patient reported a trip to Antalya (Turkey) 1 year ago, where he was stung by mosquitoes on the back, neck and arms, but the area is not known as a specific one for this type of parasite. No other members of the family or touristic group has reported symptoms. In this situation, a detailed investigation detected that at the approximately moment of the contact, the patient worked as a member in a building team, developing activities at Colentina Hospital (Bucharest) in a specific parasitological compartment for tropical diseases. It is very possible that the contamination occurred in this context, that involves a lot of aspects regarding work security and environment protection in this circumstances.

The peculiarities of the case was the simplicity of the diagnosis due to the parasite mobility finding (the key element) for a disease that is basically found only in tropical areas, and the uncertain moment and specific place of the contamination which is not determined yet.

In the same time we suspected that the first inflammatory reaction (the knee oedema) has been in context, though any node or joint inflammation were not observed after, and inflammatory tests remains normal. No progressive lower limb edema suggestive of lymphatic filariasis has been reported.

However, the complexity of the subject is related to the possibility that this localization is not the only one (even if multiple affectations are uncommon but it remain possible to

identify microfilaria into the soft structures of the knee) [3], and the investigation and medical surveillance has to be systematic and long term extended (minimum 2 years has been recommended by the parasitology specialist because of the further medical and epidemiological implications, and the medical history of the patient). A knee MRI, specific blood tests and systemic inflammatory reaction study are in progress at this moment, and all the workers involved in operations at the Colentina Hospital are evaluated too.

Conclusions

Subcutaneous filariasis is a variant expression of infestation spinning relatively easier than lymphatic form revealed, especially if specified epidemiologic element.

Parasite mobility finding was the key element of an extremely quick and easy diagnosis for a disease that is basically found only in tropical areas.

The peculiarity of the case is the simplicity of the emergency diagnosis and the complexity of the further medical and epidemiological implications.

References

1. Carbonez, G., Van de Sompel W., Zeyen T.. Subconjunctival Loa Loa Worm: Case Report. *Bull. Soc. Ophthalmol.* (2002) 283: 45-48.
2. Rosenblatt JE. Laboratory diagnosis of infections due to blood and tissue parasites. *Clin Infect Dis.* Oct 1 2009; 49(7):1103-8.
3. Knopp S, Steinmann P, Hatz C, Keiser J, Utzinger J. Nematode infections: filariases. *Infect Dis Clin North Am.* Jun 2012; 26(2):359-81.

Corresponding Author: Luciana Rotaru, M.D, Emergency Medicine and First Aide Department, University of Medicine and Pharmacy Craiova, Emergency Department - SMURD University County Hospital Craiova, Tabaci st. no. 1, zip code 200642, Dolj, email: lucianarotaru@yahoo.com