

Case Report

Presumed ocular toxocara cati infection in Port Harcourt

Ireju Onyinye Chukwuka, Bassey Fiebai*

Department of Ophthalmology, University of Port Harcourt Teaching Hospital, Port Harcourt, Nigeria

Received: 27 March 2018

Revised: 08 May 2018

Accepted: 09 May 2018

*Correspondence:

Dr. Bassey Fiebai,

E-mail: bassief@yahoo.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

Toxocariasis is a zoonotic infection transmitted from animals to humans caused by parasitic round worms found in dogs and cats. Ocular toxocariasis is a rare condition caused by *toxocara cati* that can result in monocular loss of vision. We report an accidental finding of loss of vision in the right eye of a 39-year-old who decided to get an ocular examination following a routine prep talk in an outpatient clinic. Patient was asymptomatic and presenting best corrected visual acuity in the right eye was 6/60. Fundus examination revealed multiple discrete granulomas and a fatty liver revealed on abdominal scan. There is a positive history of living with cats while growing up. We presume this to be a case of *toxocara cati*. Regular ocular examinations in addition to general medical check-up should be encouraged in pet owners and those handling animals, as well as a high index of suspicion amongst ophthalmologists.

Keywords: Monocular loss of vision, Ocular toxocariasis, *Toxocara cati*, Zoonosis

INTRODUCTION

Ocular toxocariasis (OT) is an uncommon zoonotic infection of humans caused by the nematode *toxocara cati*, with its definitive host as the cat.¹ The prevalence is generally low, but it is an important cause of uveitis and loss of vision.² Ocular and systemic toxocariasis can occur at any age however the ocular component is commoner in children and young adults.¹

Ocular features commonly reported in ocular toxocariasis include anterior uveitis, chronic endophthalmitis, vitritis, retinal pathologies especially posterior pole and peripheral granulomas.¹ Epiretinal membranes, macular edema and macular holes have also been reported.³

Our aim in this report is to present a case of presumed toxocarasis in an adult male with monocular loss of vision seen as an accidental finding.

CASE REPORT

A 39 year old Nigerian male discovered that the vision in his right eye was poor after he heard a prep-talk on ocular self-examination given by an eye care provider while awaiting consultation for another ailment at a general outpatient clinic in Port Harcourt. On a subsequent visit to the eye clinic there was no history of ocular trauma or any episode of redness, pain or sudden blurring of vision in that eye. He grew up in a monogamous setting with five siblings and several cats since his father loved cats.

Ocular examination revealed a visual acuity of 6/5 in the LE and 6/60 in the RE which did not improve with a pin-hole. Fundoscopy showed the appearance of discrete granulomas in the right fundus as demonstrated in the fundus photographs (Figure 1).

Full blood count, chest and skull x-rays were normal, but an abdominal scan revealed a fatty liver. There were no facilities for serological testing (Eliza).

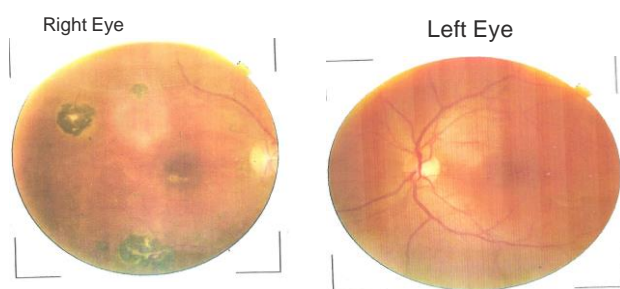


Figure 1: Fundus photographs showing toxocara cysts in the right eye.

DISCUSSION

Toxocariasis is a classical example of an infection transmitted from animals to humans (zoonosis). It is caused by the parasitic roundworms commonly found in the intestine of dogs and cats.^{1,4} Humans become infected by ingesting embryonated eggs in soil or food or encysted larvae from cows, sheep or chickens.⁴ It is one of the neglected infections of poverty. Ajayi et al performed ELISA testing on the sera of 104 children and adults and discovered a seropositive rate of 30.4% in adults and 29.6% in children.⁵ Cats are not commonly accepted as pets in Nigeria and there are no reports in literature of any studies done on a population of cats. Ugboimo discovered from a community-based study of 396 dogs, an overall prevalence of ectoparasites of 60.4% and 68.4% of intestinal helminthes.⁶ There was very limited knowledge of zoonosis in this study and the diseases were not considered a major health problem by pet owners.

In our report, the patient had no knowledge of zoonosis even though they grew up living with several cats as pets. OT varies in its clinical presentation from asymptomatic to severe organ damage.¹ Our patient was asymptomatic. The accidental discovery of poor vision in the right eye also brings to the fore the lack of awareness of eye health. In 90% of cases presentation is unilateral as was seen in our case.^{1,2} Peripheral and posterior pole granulomas are typical retinal findings seen in ocular toxocariasis.^{7,8} A fundus photograph of the index case shows granulomas in the retina periphery and a small one at the posterior pole. To the best of our knowledge there is no report of ocular infections transmitted from cats as pets in Nigeria.

With regards to prognosis and complications, in the ocular form outcome is variable but unilateral vision loss is not uncommon. In the visceral form, outcome is

usually good but marked organ damage and even death can occur in extreme cases.

CONCLUSION

Prevention of infection to humans is by actively involving veterinarians and pet owners. Pets should be placed on a deworming programme and their faeces should be picked up and buried. Regular medical checkup including ocular examination should be encouraged.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: Not required

REFERENCES

1. Ahu SJ, Ryoo SK, Woo SJ. Ocular toxocariasis: Clinical features, diagnosis, treatment and prevention. *Asia Pac Allergy*. 2014;4(3):134-41.
2. Stewart JM, Cubillan LD, Cunningham ET Jr. Prevalence, clinical features, and causes of vision loss among patients with ocular toxocariasis. *Retina*. 2005;25:1005-13.
3. Ahn SJ, Woo SJ, Jin Y, et al. Clinical features and course of ocular toxocariasis in adults. *PLoS Negl Trop Dis*. 2014;8:e2938.
4. Moreira GM, Telno PD, Mendoica M, Moreira AN, McBride AJ, Scaini CJ, et al. Human toxocariasis: Current advances in diagnosis, treatment and interventions. *Trends Parasitol*. 2014;30(9):450-64.
5. Akeredolu AB, Sowemimo OA. Prevalence, intensity and associated risk factors for *Toxocara canis* infection in Nigerian dogs. *J Parasitology Vector Biology*. 2014;6(8):111-6.
6. Ajayi OO, Duhlińska DD, Agwale SM, Njoku M. Frequency of human toxocariasis in Jos, Plateau State, Nigeria. *Mem Inst. Oswaldo Cruz, Rio de Janeiro*. 2000;95(2):147-9.
7. Yokoi K, Goto H, Sakai J, Usui M. Clinical features of ocular toxocariasis in Japan. *Ocul Immunol Inflamm*. 2003;11:269-75.
8. Woodhall D, Starr MC, Montgomery SP, Jones JL, Lum F, Read RW, et al. Ocular toxocariasis: epidemiologic, anatomic, and therapeutic variations based on a survey of ophthalmic subspecialists. *Ophthalmology*. 2012;119(6):1211-7.

Cite this article as: Chukwuka IO, Fiebai B. Presumed ocular toxocara cati infection in Port Harcourt. *Int J Community Med Public Health* 2018;5:3144-5.