LACRIMAL DRAINAGE OBSTRUCTION BY ASCARIS LUMBRICOIDES

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SUMMARY

Lacrimal drainage obstruction by Ascaris lumbricoides is extremely rare and only few cases have been documented. We report an additional case from the Democratic Republic of Congo.

RÉSUMÉ

L'obstruction des voies lacrymales par l'Ascaris lumbricoides est rare; très peu de cas ont été rapportés dans la littérature. Nous rapportons un nouveau cas chez un enfant Congolais.

KEY WORDS

Lacrimal drainage obstruction, Ascaris lumbricoides

MOTS-CLÉS

Obstruction des voies lacrymales, Ascaris lumbricoides

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received: 20.04.04
accepted: 13.05.04

INTRODUCTION

Studies have shown that ascariasis is the most common helminthic infection worldwide, with a high prevalence in tropical and subtropical areas because of poor socio-economic and inadequate sanitary conditions. Adult worms in the human small intestine are usually poorly symptomatic. However, heavy load of adult worms may lead to a wide range of complications. In addition, due to their high ability of migration, erratic worms may unfortunately migrate into aberrant locations and cause severe acute complications. These aberrant sites include the peritoneal cavity, biliary tree, gallbladder, urinary tract, heart, cervix uteri, middle ear and lacrimal passage. However, obstruction of the lacrimal passage by *A. lumbricoides* is extremely rare, with only few cases reported worldwide so far. This paper reports an additional and second case from Kinshasa in the DR Congo.

CASE DESCRIPTION

A five-year old boy was referred by his paediatrician because of a one-week history of watery and purulent discharge in the right eye. Three days prior to the ophthalmologic examination he was irregularly treated with chloramphenicol eye drops without any improvement. There was no history of eye trauma or conjunctivitis in his immediate surrounding. His past medical history was unremarkable. On examination he appeared in good general condition. The right eye was mildly red, with a 0.5 cm white cordon-like matter hanging from the upper lacrimal punctum (Figure). After being slowly and entirely pulled out with a forceps under topical anaesthesia, the "cordon" was identified by parasitologists as an A. *lumbricoides*. Anterior rhinoscopy with headlight and nasal



Fig 1. Extraction of the worm from the right upper lacrimal punctum.

speculum was unremarkable. Heavy load of A. *lumbricoides* eggs was found in the stool sample and blood leukocyte count showed a hypereosinophilia of 8%. Gentamicin eye drops (4 drops daily for one week) together with albendazole (single dose of 400 mg) were prescribed. The discharge completely disappeared within 4 days. Two weeks and one month later, the examination was normal.

COMMENT

This is the second case of lacrimal drainage obstruction by A. *lumbricoides* reported in Kinshasa, DR Congo. Though the incidence of this complication is unknown, the worldwide scarcity of reports suggests that migration of adult A. *lumbricoides* into the lacrimal drainage system is a rare event. So far it has only been reported in the pediatric population under 12 years, probably because they are more severely infected than those older than 12 (9, 13). Acquired lacrimal drainage obstruction may be secondary to infections, inflammation, neoplasms, trauma and mechanical blockage. Infectious causes include both bacteria (chlamydia, mycobacterium, bacteroides, enterobacter, S. aureus, aeruginosa, actinomyces, propionobacterium, enterobacter, T. pallidum) and viruses (chickenpox, herpes). Mechanical blockage may result from development of fungi (pityrosporum, candida and aspergillus), dacryolith or from the presence of parasites in the lacrimal drainage system. Among parasites, only A. *lumbricoides* appears to cause lacrimal drainage obstruction after crossing the valve of Hassner. The reason for such a long way migration is not fully understood yet. It has been hypothesized however that high fever, effect of antihelminthic drugs and unfavourable local conditions due to mixed infections may force some worms to migrate and look for better conditions. There was no evidence of fever, antihelminthic treatment prior to the onset of the disease or mixed parasitologic infestation in the present case. Extraction of the worm was relatively easy because at presentation the worm was small and partly outside the lacrimal punctum.

In conclusion, ophthalmologists in developing countries should be aware of the possibility of lacrimal duct obstruction by A. *lumbricoides*, especially in children.

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