

Case Report
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Case Report: Onchocerciasis (Loa Loa)

Abdullah Mohammed Alshehri¹ and Elsharif A Bazie^{2*}

¹Pediatric Emergency Consultant -Security Forces Hospital-Riyadh-Saudi Arabia

²Pediatric Emergency Physician -Security Forces Hospital-Riyadh-Saudi Arabia

ABSTRACT

Onchocerca volvulus is a spirurid nematode from the Superfamily Filarial diseases, family Onchocercidae. We report a family member from Saudi Arabia with Onchocerciasis from Dammam City. We report a family member from Saudi Arabia with Onchocerciasis from Dammam City. Ocular lesions, ranging from sclerosing keratitis to optic nerve atrophy, increase the incidence of Blindness among patients. Knowledge about tropical diseases in non-tropical countries is essential to early diagnosis and treatment.

*Corresponding author's

Elsharif A Bazie, Pediatric Emergency Physician -Security forces hospital-Riyadh-Saudi Arabia.

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Introduction

Onchocerca volvulus is a spirorbid nematode from the Superfamily Filarial diseases, family Onchocercidae [1]. Onchocerciasis caused by *Onchocerca* tends to affect poor populations of Sub-Saharan Africa, Yemen, and parts of Central and South Africa [1]. During its lifecycle, the worm involves two hosts: man as a definitive host and the black fly genus *Simulium* as an intermediate host [2]. Humans become infected with third-stage larvae by biting female *Simulium damnosum* or other blackfly vectors [1]. Onchocerciasis is also known as river blindness because of the high prevalence of Blindness in populations located along fast-flowing rivers, where the vectors breed. It results in up to 500,000 cases of severe visual impairment (including visual field reduction) and 270,000 cases of blindness [3]. Ocular lesions ranging from punctate and sclerosing keratitis (anterior segment) to optic nerve atrophy (posterior segment), increase the incidence of Blindness among patients with loaded microfilariae [4]. Onchocerciasis also causes intense itching and skin changes ranging from early, reactive lesions—acute papular onchodermatitis, chronic papular onchodermatitis, and lichenified onchodermatitis—to late changes such as depigmentation and skin atrophy [5]. Ivermectin is the drug of choice as a microfilaricidal agent, dosing at intervals of 3–12 months is recommended for at least 10-12 years [6].

Patients' Presentation

Family members, consisting of parents, two girls, and one boy from Dammam, suffered from skin and hair itching and rash for about one year, followed by eye itching and redness. Later, they notice larvae in their eyes with intense itching; also, they develop

skin excoriation and pigmentation. They consulted the hospital in the region, but there was no improvement. Father had a car renting company, and his cars sometimes go near Yemen. The family notice strange flies in their house [Figure 1]. They did not travel out of Dammam. They consulted many doctors through web sides without getting a definitive diagnosis. On examination, there was a papular rash associated with excoriation marks, probably due to scratching. There was hypopigmentation around the shin, forearms, and legs (leopard skin-like changes) with associated hardening of the skin around this region [figure 2]; in the hair, there is a larva with itching and scratching figure [3]. Eyes showed redness and larva [figure 4]. We consulted the infectious diseases department, and a diagnosis of onchocerciasis was made; treatment with Ivermectin plus Doxycyclin was started with an Outpatient clinic (OPD) appointment for follow-up.



Figure 1: Black fly



Figure 2: Skin Larvae

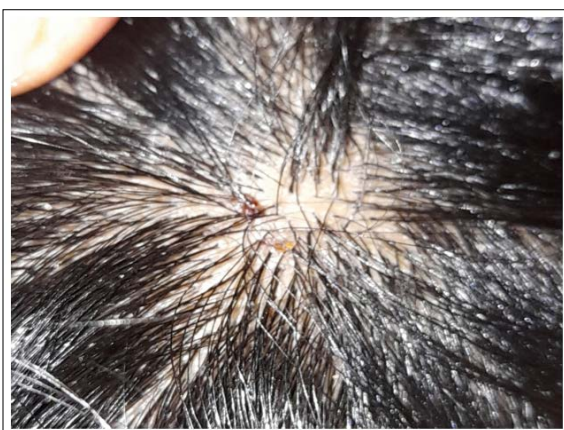


Figure 3: Hair Scratching with Larvae

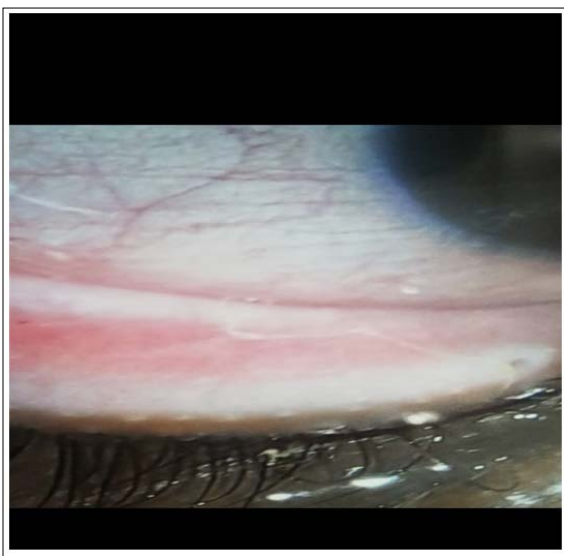


Figure 4: Eye Larvae with Eye Redness

Central and South America. Although our patients had no travel history, the cars from the father's car rental company that went to Saudi Arabia's borders with Yemen may broaden the Black fly to their house, which is our most suggested. This case illustrates how increasing car movement has allowed tropical diseases to be seen in nonendemic areas. Knowledge regarding this disease entity is imperative to aid early recognition and offer physicians worldwide appropriate treatment.

Conflict of Interest: Nil

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Discussion

From a single bite of a black fly, permanent disability and Blindness can occur. The Simulium fly introduces infective larvae of *Onchocerca volvulus* into the skin where it became an adult worms in 2 to 4 months. the adult worms live in subcutaneous tissue for several years [7]. Fibrosis around the adult worm results in nodules around bony prominences [7-8]. *O. volvulus* infection is not prevalent in Saudi Arabia and mainly occurs in West Africa and

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