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Case Report

Human Urinary Myiasis Caused by *Eristalis tenax* in Palestine: A Case Report

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Abstract

In humans and other mammals, urinary myiasis can be rarely caused by *Eristalis tenax*, which belongs to the order Diptera. In this case, we report a 21-year-old woman with this myiasis. She was complaining of dysuria and bilateral Costolumbar pain. The larva in her urine sample was identified as *E. tenax* associated with its typical morphology.

Introduction

Diptera (true fly) larvae can cause myiasis (Larvae infection) in humans and other vertebrates. Human urinary myiasis are accidental since no known insects can complete their lifecycle within the human urinary tract. *Eristalis tenax* is one of the cosmopolitan, accidental causative agent of myiasis (1). However, it can be due to di-

rect laying eggs on the human body or exposure to contaminated water or undercooked food. *E. tenax*'s third stage larva has eight pairs of prolegs on its ventral side (2).

In this case report, we present a patient admitted to the Urology Clinic and diagnosed with myiasis caused by *E. tenax* at the Laboratory of Department of Microbiology and Im-



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Case report

A 21-yr-old woman visited a private outpatient urology clinic on 30 May 2021 in the northern part of Palestine. She was suffering from dysuria and bilateral Costo-lumbar pain. The physician suspected myiasis infection and referred to a private laboratory which consulted our laboratory at the Department of Mi-

crobiology and immunology. In the urine sample, five larvae were diagnosed. She had no history of urinary tract infections. She used to live in the center of a major city in the north part of Palestine with good hygiene and excellent sanitary condition. No history of myiasis was in the family or neighborhood. Urine analyses were typical for all parameters. The larvae were cylinder in shape with a long tail-like respiratory tube. They were motile, 24-26 mm long, with a dark and light yellowish color. They were identified as rat-tailed larvae (*E. tenax* larva) (Fig. 1).



Fig. 1: Three larvae isolated from Urine sample with 24-26 mm long

Discussion

E. tenax has been introduced to many countries of the world for agricultural purposes and has spread in most countries (1). It is rare for *E. tenax* to lead to myiasis in the urinary system. Still, in general, it leads to myiasis in the intestine, and many cases have been documented worldwide (3-5) Until now, few cases of urinary tract myiasis was reported worldwide (6,7), and this one is the first reported case in Palestine and surrounding countries. It

is a rare case of infection with good hygiene, but this should be reported for health workers to be aware of.

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Conflict of Interest

The authors declare that there is no conflict of interests.

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