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A Case Study: Diagnosis of Intestinal Myiasis Maggot in a Mature Male in Baghdad

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Abstract

Myiasis is abnormal case of man infection due to either ovulating flies in the wounds which called cutaneous myiasis or due to ingestion of eggs of the flies accidentally with food which causes the gastric or intestinal myiasis .We report here a case of myiasis in a mature male (60 years old) sent by a private clinic in Baghdad to parasitological section /Central Public Health Laboratories (CPHL) /Baghdad and by the help of Museum of Natural History, it diagnosed as intestinal myiasis.

Keywords: Intestinal myiasis , maggot ,Sarcophaga.

دراسة حالة : تشخيص يرقات النغف المعوي في رجل بالغ في بغداد

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الخلاصة

النغف هو حالة غير طبيعية لاصابة الانسان اما بسبب اصابة الذباب في الجروح وعندئذ يسمى النغف الجلدي او بسبب تناول البيوض عرضيا مع الطعام ويسبب النغف المعوي او المعوي. في هذه الحالة تم تشخيص حالة من النغف في رجل بالغ (60 سنة) تم احواله من عيادة خاصة في بغداد الى شعبة الطفيليات في مختبر الصحة العامة المركزي / بغداد وبمساعدة متحف التاريخ الطبيعي، شخصت على انها حالة من النغف المعوي.

Introduction:

The term 'myiasis' now in general use was coined by Reverend Hope in 1880 to refer to a disease resulting from invasion of living tissue of man or animals by dipterous fly larvae resulting in disturbances depending on the site of infestation. This was different from those caused by other insect larvae, termed "*Scholechiasis*" [1].

Severity of myiasis depends on site of infestation. It is commonly classified according to part of the host involved including dermal, sub dermal, cutaneous, arterial nasopharyngeal, ocular, auricular, intestinal, gastric and urogenital [2,3]. Intestinal myiasis is a condition when the fly larvae inhabit the gastrointestinal tract and are passed out in feces. This type of infestation results when eggs or larvae of the fly, deposited on food are taken by man. They survive the unfavorable conditions within the gastrointestinal tract and produce disturbances, which may vary from mild to severe. The condition is not uncommon and is often misdiagnosed as pinworm infestation [4]. Correct diagnosis by the clinical microbiologist is important to avoid unnecessary treatment.

Materials and methods:

A 60-year old male sent by a private clinic in Baghdad to parasitological section /Central Public Health Laboratories (CPHL) /Baghdad , suffering from abdominal pain , diarrhea and complaining of passing worms according to his description in stool with no blood .There was no history of any other clinical signs on him.

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The primary diagnosis of Maggots made macroscopically in the parasitological section/CPHL/Baghdad. The collected Maggots from the stool were large dull pink in color, 1.8 cm in length with one end tapering and the other one was cut and from these criteria diagnosed as intestinal myiasis but without determining the genus, then preserved by 10% formalin and sent to the / Invertebrates and Insects laboratory / Museum of Natural History/ Baghdad for more precise diagnosis and it was diagnosed as larva of *Diptera*, *Sarcophagidae*[5]. Which causes the disease of intestinal myiasis in man. Unfortunately, the sample was a little distorted, so it was not easy to diagnosis the species of the maggots by them.

Results and Discussion:

The large pinkish flesh Maggots was belonging to family *Sarcophagadiae*. Genus *Sarcophaga* has a nearly worldwide distribution. About 30 species of dipterous larvae including *Sarcophaga* species have been found capable of producing intestinal myiasis till now[6]. According to relationship between the host and the parasite, myiasis can also be classified as: obligatory- where the parasite cannot complete its life cycle without its parasitic phase, which may be specific, semi specific or opportunistic or facultative or accidental- when it is not essential to complete the life cycle of the parasite in the host and perhaps a normally free-living larva accidentally gains entrance to the host [2,7]. Intestinal myiasis in human is probably an accidental myiasis, which occurs when the fly egg or larvae deposited in food are ingested, survive in gastrointestinal tract and are excreted in feces. Accidental ingestion of dead or living larvae of the flies without associated pathological lesions or symptoms gives rise to a condition commonly known as pseudomyiasis [5,8,9]. Many cases has been reported in many countries [4,6,10,11]. It seems it is not related to only poor sanitary but also to bad habits by eating food without washing [3]. Although babies and small children seem more susceptible to intestinal myiasis than adults, probably the age distribution can be explained by childhood activity, fearlessness of wormlike creatures, and experimentation [14]. The microscopic examination is diagnostic for such cases. Though largely benign, still has reports of symptomatic as well as severe clinical symptoms, depending on the number and species of fly larvae and their location within the digestive tract of the host [2].

Therefore, all possible cases of intestinal myiasis should not be ignored and carefully followed, so that proper and timely treatment may be given when necessary, to avoid disastrous complications. Usually accidental myiasis is enteric, resulting from intake of contaminated food or water containing fly larvae or eggs. Most larvae are destroyed by digestive juice and the dead larvae are excreted harmlessly in the feces. The effect is also called pseudo myiasis, but some larvae can survive and with help of oral hooks get firmly attached to the intestinal mucosa [13]. They live in the intestinal tract and produce intestinal distress. This is called true myiasis [11]. The larvae can cause severe clinical syndrome in human beings, depending on the larval species, their number and location within the digestive tract. In many instances, they are passed out in feces without causing much disturbance as in most of our cases but severe infestations have said to cause depression and malaise in patients. They may cause vomiting, bloody diarrhea, and abdominal pain due to injury to intestinal mucosa [14].

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