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Case Report

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A case of scalp myiasis from a non-endemic region

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ABSTRACT

Myiasis is an infestation of maggot flies, usually found in tropical and non-tropical regions such as Africa and South America. Although cases are reported after trips to the endemic regions, it should not be overlooked, as in our case, that they may appear especially in poor socioeconomic conditions and the individuals who have to live in the unsanitary environment. Here, we present a 7-year-old myiasis case in our region because it is rare but it can be easily treated when it is diagnosed and it causes unwanted complications if it is not treated.

1. Introduction

Myiasis is defined as an infestation of the mammalian tissue by developing larva of a variety of fly species (Burkhart et al., 2018). Classification of human myiasis by localization includes cutanous cavity and enteric myiasis. Cutanous myiasis is divided into wound myiasis and furuncular myiasis (Duro et al., 2007). In wound myiasis an open wound or orifice is infested by fly larvaes such as dermatobia hominis which is the leading cause. A carrier fly lays its eggs on an open wound or flesh that hatch in response to elevated temperature followed by larvae development and rapid skin penetration (Cetınkaya et al., 2008). The diagnosis is simple when larvae are visible on wound surface and challenging if they are burrowed deeply. Myiasis is vastly a self-limiting disease with minimal morbidity. The indications for treatment are pain reduction, cosmetic concerns, and psychological relief. The incidence of misdiagnosis at the beginning of myiasis cases and accordingly the use of ineffective antibiotic therapy is high (Johnston and Dickinson, 1996). Secondary infections such as cellulitis, lymphangitis, and lymphadenitis are thought to develop due to the faeces of larvae (Schembre et al., 1990).

Treatment options include surgical debridement under local anestesia which is usually curative but remaining larva pieces can induce a foreign body reaction. Occlusion/suffocation method involves placement of occluding material like liquid parafin, petroleum jelly, beeswax over the wound. Aerobic larvae is forced to rise to surface for air over the course of several hours then they are captured by forceps. Alternatively, lidocain injection into tissues inhabited by larvae forces them to the surface (McGraw and Turiansky, 2008). Oral ivermectin is used successfully for oral and orbital myiasis.

2. Case

A 7-year-old female patient admitted to our clinic with the complaint of a wound on scalp and seeing worms on it time to time. Wound occured one month earlier after minimal travma and grew since. Worms were noticed for one week. Detailed history revealed poor socio-economic status. She was living with her old and careless grandparents. Inspection of the scalp showed a supurated, 1.5x1.5 cm size ulcer on erythematous, scaly base in occipital area (Fig. 1). The tip of moving larvae heads was visible to naked eye by close examination.
First, we cut patient's hair then disinfected the scalp

Fig. 1. Inspection of the scalp showed a supurated, 1.5x1.5 cm size ulcer on erythematous, scaly base in occipital area.

with povidone iodine. She was given intravenous ampicillin-sulbactam therapy 1 gr four times daily to treat secondary infections. We applied occlusion/suffocation method with petrolatum jelly and captured 22 larvaes with forceps aid (Fig. 2). To rule out brain invasion, we performed computed tomography scan of the brain that showed no intracranial lesion with minimal defects in cutaneous and subcutaneous tissue of right occipital area. After 7 days of systemic antibiotic therapy regression of the lesion was achieved and patient was discharged with topical fucidic acide. Two weeks later, during control examination, only a minimal alopecic area with scarring was noticable (Fig. 3).

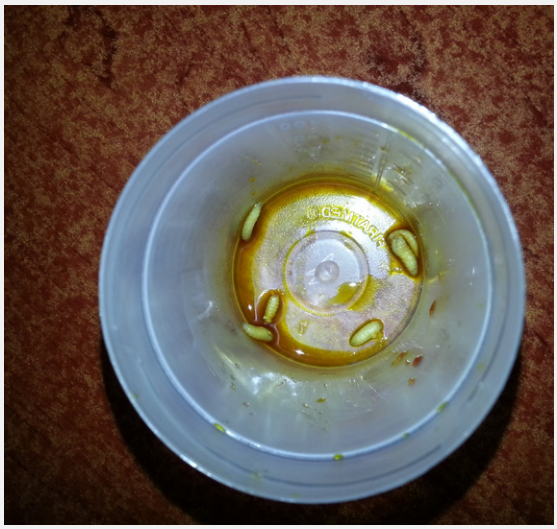

Fig. 2. Captured larvaes with forceps aid.

Fig. 3. Two weeks later, during control examination, only a minimal alopecic area with scarring was noticable.

3. Discussion

Myiasis is almost always seen in people from poorer, unsanitory environment with debilitating conditions (Obasa and Sowunmi, 2012). Although it mostly involves exposed intact or damaged skin, eyes, nose, ears, urogenital tract, scalp and even brain can also be involved (Amitay et al., 1998). Despite myiasis is thought to be a disease of tropical and subtropical climates, individuals from other regions with poor socioeconomic status can also be affected and it is important to keep myiasis in differantial diagnosis of cutaneous suppurative ulcerated lesions. In addition, people traveling to endemic areas such as South America and Africa should be advised to wear insect repellent and protective clothing from mosquito bites to prevent the transmission.

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