Case Report ISSN 2639-9458

Microbiology & Infectious Diseases

Facultative Cutaneous Myiasis of the Auricle and Parotid Region in a Fragile Patient

Antonio Marco Miotti[1]*, Antonio Faita[2], Agnese Vitturi[3], Monica Trambaioli[4], Emanuela Zilli[5] and Anna Maria Leo[6]

[1]*Assistant Medical Director, Hospital Direction/Infectious Diseases Consultancy Service, Cittadella Hospital - ULSS 6 Euganea, Italy.*

[2]*Assistant Medical Director, Department of Otolaryngology, Cittadella Hospital - ULSS 6 Euganea, Italy.*

[3]*Resident Physician, School of Specialization in Otolaryngology, University of Padua, Italy.*

[4]*Senior Clinical Scientist, Department of Laboratory Medicine, Cittadella Hospital - ULSS 6 Euganea, Italy.*

[5]*Medical Director, Hospital Direction, Cittadella Hospital - ULSS 6 Euganea, Italy.*

[6]*Medical Director, Department of Laboratory Medicine, Cittadella Hospital - ULSS 6 Euganea, Italy.*

***Correspondence:**
Dr. Antonio Marco Miotti, Assistant Medical Director, Hospital Direction/Infectious Diseases Consultancy Service, Cittadella Hospital - ULSS 6 Euganea, Italy.

Received: 04 Apr 2026; **Accepted:** 06 May 2026; **Published:** 14 May 2026

Citation: Miotti AM, Faita A, Vitturi A, et al. Facultative Cutaneous Myiasis of the Auricle and Parotid Region in a Fragile Patient. Microbiol Infec Dis. 2026; 10(3): 1-3.

ABSTRACT

Myiasis is an infestation caused by larvae of dipteran insects, usually flies, that develops within dead or living tissue of vertebrates. It can affect both animals and humans, potentially leading to severe damage. This condition is uncommon in high-income and temperate countries, such as those where our team operates.

Hereby we report a case of myiasis occurred in an elderly patient, suffering from advanced cutaneous neoplasia of the parotid and auricolar region, as well as Chronic Lymphocytic Leukemia.

Of note that the larvae identified on our patient, and located in the left auricle and parotid district, belonged to a fly genus - Musca - with low pathogenetic potential, thus representing a case of facultative myiasis. Treatment consisted of extensive surgical debridement, antiparasitic therapy, and antibiotic coverage, with excellent overall response.

Keywords

Myiasis, Facultative myiasis, Musca species, Dipteran larvae, Cutaneous neoplasia, Chronic lymphocytic leukemia.

Introduction

Myiasis is an infestation due to larvae of dipteran insects, most commonly flies. It can affect both animal and humans, developing within their - dead or living - tissues [1,3,4].

Usual sites of parasitosis are superficial wounds, body orifices or mucous membranes, where various species of flies may deposit their eggs [7,8,9]. Head and neck cancer increases susceptibilty due to tissue abnormalities: tumor necrosis, chronic ulceration, bleeding. Cachexia and immunosuppression further contribute to potential parasitic infestation [3,8,13,14].

Fly eggs hatch within 24 hours, releasing larvae that burrow through the tissues and feed on them together with blood. This may result in a significant tissue/organ damage and bacterial superinfection [2,5,6].

Although ubiquitous, this pathological entity is uncommon in

high-income countries, tending instead to occurr in tropical and subtropical climates, as well as in poor hygiene settings, and in frail patients [6,9,11].

Hereby we describe a case of myiasis occurred in an elderly patient, suffering from advanced skin neoplasia of the left parotid region with involvement of the auricle, as well as Chronic Lymphocytic Leukemia. Due to his underlying conditions, the man was followed by oncologists and plastic surgeons from other institutions. The medical history of the subject was negative for travel to exotic areas. He came to the attention of the Emergency Department because of bleeding from a dressing in left preauricular region. Evaluation by ENT and Infectious Disease specialists revealed presence of live and motile insect larvae in the auricle and parotid district, leading to a diagnosis of cutaneous myiasis, with subsequent medical and surgical treatment.

For the maggots found on our patient belonged to a fly genus - *Musca* - with low pathogenetic potential, we classified our case as facultative myiasis [1,10,11].

Case Report

In May 2025, a 82-year-old Italian man presented to the Emergency Department for signs of bleeding from a dressing in left periaricular region. He had a history of advanced skin neoplasia of the left parotid district with auricle involvement, as well as Chronic Lymphocytic Leukemia, and was regularly followed by oncologists and plastic surgeons. After admission at the hospital, the patient was evaluated by the ENT and Infectious Disease specialists, who identified live, white and motile insect larvae in the auricle and parotid region. This led to a diagnosis of cutaneous myiasis, with subsequent hospitalization. Laboratory Department confirmed the presence of dipteran larvae belonging to the genus *Musca*. The infestation involved the ulcerated skin of the parotid, preauricular region and pinna, where the tumor was located. The skin of the external ear canal (EAC) appeared intact, and worked as a protective site for maggots growth.

On the ID consultant's advice, a surgical remediation was performed in association with a treatment based of albendazole 400mg/day, ivermectin 15mg/day and i.v. amoxicillin/clavulanate 1000/200 mg per day. The ENT procedure consisted of meticulous removal of each larva, under direct vision and microscopic examination of the external auditory canal.

Upon prior mechanical curettage of the fibrin present in the ulcerated area, multiple disinfections were performed with iodine solution, followed by gauze dressing replaced every 24 hours after disinfection.

The patient's clinical course was good. Blood tests were performed every two days: C-reactive protein (CRP) decreased from 45 to 8 mg/L, while white blood cells (WBC) count and procalcitonin (PCT) kept testing normal. Following ID re-evaluation, the man was discharged from the ENT Department after four days of hospitalization, resuming his oncology and plastic surgery follow-up. The overall duration of the anti-infective regimen was five days for albendazole and ivermectin, and eight for amoxicillin/clavulanate (with this passed orally after an initial attack i.v. phase).

Discussion

Myiasis primarily develops in frail and immunocompromised individuals, especially in the presence of poor sanitation and/or malnutrition [5,6,9]. It is worth noting that this pathological entity can't be transmitted from person to person. Cases of infestation occur worldwide, despite being more prevalent in tropical and subtropical areas [1,6,10]. Among the flies capable of causing disease, *Musca domestica* - the common housefly - is also included, although rarely implicated, so much so that it is described as a "facultative myiasis" agent, to differentiate it from fly genera with a greater pathogenic potential, such as *Chrysomya*, *Wohlfahrtia* and *Cochliomyia* [1,5,10,11].

The infestation can be classified according to its localization: cutaneous myiasis; external orifice myiasis, such as nasal, ocular, aural, vaginal or anal; and internal organ myiasis, which tipically affects the intestinal or the urinary tract [12,16].

Treatment of myiasis usually includes mechanical removal of the larvae with immediate extraction, topical disinfection with povidone-iodine, hydrogen peroxide and chlorexidine, together with systemic therapy based mainly on albendazole and ivermectin [3,7,8]. Antibiotics should be used in case of confirmed or suspected bacterial superinfection. However, there's no standardized treatment protocol: management may depend on the depth of the wound, the extent of the parasitosis, and patient characteristics. Sometimes the only treatment adopted is the manual removal of the maggots under local anesthesia, or surgical debridement [9,15].

Our patient was affected by a double neoplastic condition, consisting of advanced skin cancer of the left parotid district with involvement of the auricle, plus Chronic Lymphocytic Leukemia. Furthermore, due to a series of reasons and difficulties, the hygienic-sanitary context in which the elderly subject lived was suboptimal. Therefore, his overall risk of developing myiasis was non-negligible, although we've already pointed out that this pathological entity is uncommon in temperate countries (please note that the medical history of the subject was negative for travel to exotic areas).

The 82-year-old Italian man had come to the attention of the Emergency Department for signs of bleeding from a dressing in left periaricular region. The diagnosis of myiasis was initially made by the Infectious Disease specialist, based on the detection of live, white and mobile insect larvae in the auricle and parotid region. Diagnostic confirmation came shortly after from the Laboratory Department, where maggot samples had been sent: "Specimen consisting of dipteran larvae of the genus *Musca*". The elderly patient underwent a full surgical remediation, and at the same time was treated with antiparasitics and antibiotics (namely

albendazole, ivermectin and amoxicillin/clavulanate). Finally both his clinical course and the subsequent follow-up were excellent.

Myiasis is an unusual disease, potentially capable of causing severe consequences for organs and tissues. Its timely recognition is thus essential in order to treat it properly.

We believe that the patient's overall fragility provided the conditions for the development of a facultative myiasis caused by flies of the genus *Musca.*

Conclusion

We faced a case of cutaneous myiasis of the auricle and parotid region, occurred in an elderly and neoplastic subject. The man had presented with bleeding from a dressing in left preauricular region. The diagnosis was made after identification of dipteran larvae of the genus *Musca* in that anatomical district. Treatment consisted of extensive surgical debridement, antiparasitic drug regimen, and antibiotic coverage. The overall outcome was excellent.

Since the maggots found on the patient belonged to a fly genus with low pathogenetic potential, we classified our case as facultative myiasis.

Acknowledgements

We would like to thank all the colleagues and departments involved in the management of this case.

References

1. Bousbia C, Mitibaa L, Rebai A et al. A case report of nosocomial myiasis caused by Musca domestica and literature review. Open J Clin Medical Images 2022; 2(1):1047.
2. Dinulos JGH, Merola JF, Cutaneous Myiasis. MSD Manual 2025.
3. Priya SS et al. Successful conservative management of myiasis of an episiotomy wound and the uterine cavity postnatally: A case report. Case Reports in Women's Health; Volume 46, June 2025, e00709.
4. Myiasis. Feigin and Terry's Textbook of Pediatric Infectious Diseases 2009.
5. Myiasis. Department of Health - The Government of the Hong Kong Special Administrative Region. Centre for Health Protection 2024.
6. Gealh WC, Ferreira G, Jacobucci Farah G et al. Treatment of oral myiasis caused by Cochliomyia homnivorax: two case treated with ivermectin. British Journal of Oral and Maxillofacial Surgery 2008; 47(1):23-6.
7. Jairo V, Trujillo R, Barreto M. Myiasis: A successful treatment with topical ivermectin.
8. Patel GB et al. Management of Malignant Wound Myiasis with Ivermectin, Albendazole, and Clindamycin (triple Therapy) in advanced Head-and-Neck Cancer Patients: a prospective observational study. Indian J Palliat Care 2018; 24(4):459-464.
9. Lazaro SA et al. Treatment of facial myiasis in an elderly patient with oral squamous cell carcinoma: Case report. Int J Surg Case Rep 2020; 21;71:260-265.
10. Ajmal H et al. Facultative para-trachostomy myiasis with a housfly (Musca Domestica: A case report. Otolaringology Case Reports 2024;Volume 30; March 2024;100565.
11. Trombetta L et al. Cutaneous myiasis due to Cochliomya hominivorax in a drug user. J Infect Dis Dev Ctries 2009; 3(11):873-876.
12. Al-Maweri SA et al. Myiasis Associated with Oral Squamous Cell Carcinoma - A Literature Review. Asian Pac J Cancer Prev 2015; 16(12);4997-9.
13. Cevik C et al. An unusual Wolfahrtia magnifica Myiasis Case Localized in Cutaneous and Subcutaneous Tissues in a Patient with Head-Neck Cancer. Turkiye Parazitol Derg 2014; 38(2);135-137.
14. Wollina U. Massive scalp myiasis with bleeding in a patient with multiple malignancies. Int Wound J 2010; 28;7(4):297-299.
15. Bayandir T, Cicek MT, Atambay M, Kizilay A. Cutaneous myiasis in a malignant wound of the head and neck region. J Craniofac Surg 2012; 23(1);19-20.
16. Bayandir T, et al. Bilateral aural myiasis (Wolfhartia magnifica): a case with chronic suppurative otitis media. Turkiye Parazitol Derg 2010; 34(1);65-67.