

Ophthalmomyiasis Caused by a *Phormia* sp. (Diptera:Calliphoridae) Larva in an Enucleated Patient

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Introduction : The most common site of fly larva infestation is skin wounds. However, cases of ophthalmomyiasis have rarely been reported worldwide, accounting for <5% of all cases [1]. Most of the patients with ophthalmomyiasis were reported from tropical countries with low socioeconomic status; however, sporadic cases have occurred in developed countries [2]. Ophthalmomyiasis is classified into the external and the internal type, with the former being more common [3]. External ophthalmomyiasis is a limited infestation of superficial periocular tissues, including conjunctival myiasis. Internal ophthalmomyiasis is characterized by the presence of the larva within the eye, which occurs when dipterous larvae penetrate the conjunctiva and sclera, and migrate into the subretinal space [2]. Symptoms, such as severe eye irritation, redness, foreign body sensation, pain, lacrimation, and swelling of the lids, have been reported in patients with ophthalmomyiasis, but complications, including corneal ulcers and decreased vision, are not uncommon [4].

In Korea, 4 cases of myiasis have been reported [5]; however, myiasis of the eye has never been reported. We present here a case of ophthalmomyiasis caused by *Phormia* sp. larva in a Korean man.

Case Record :

A 50-year old male residing in Cheonan-si, Chungcheongnam-do, the Republic of Korea visited the Department of Ear, Nose, and Throat of Dankook University Hospital on 1 June 2010 for a mass in the right auricular area. The mass was diagnosed as a malignant melanoma with metastatic lymphadenopathy, and wide excision was scheduled. He was a day laborer, and had an enucleation of his right eye due to squamous cell

carcinoma 5 years ago. During hospitalization, foreign body sensation developed in his right eye on 9 June, and close examination revealed a moving fly larva inside the eye cavity (external type). The larva was removed and sent to the Department of Parasitology for analysis. A wide excision was performed on 7 June 2010. The postoperative course was uneventful without any complaints of further myiasis.

Discussion : This is the first report of ophthalmomyiasis, the external type, in Korea. In humans, ophthalmomyiasis is commonly caused by the ovine nasal botfly *Oestrus ovis* [1]. The Russian botfly *Rhinoestrus purpureus* which is found in sheep-farming communities [7] and *Hypoderma* spp., including *H. bovis*, have also been reported to be the cause of ophthalmomyiasis [8]. In addition, ophthalmomyiasis caused by *Cochliomyia hominivorax* larvae has been described in Brazil [9].

In recent years, myiasis has been uncommon in Korea. However, a nasal myiasis was reported last year at Dankook University Hospital [5], and the present case occurred again. Judging from the developmental period of the larval stage of *Phormia* sp. and the warm climate, it could have been possible that he was infested with fly larvae during hospitalization [11,16]. Control of fly populations is needed at Dankook University Hospital, and prevention from myiasis is recommended in patients with open, draining wounds through continuous use of dressings. Since it has been suggested that hospital-acquired myiasis has been under-reported [17], careful observation should be performed on the presence of flies in other hospitals.

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