Human myiasis in anal carcinomatous ulcer – a case report

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Abstract. – A 65-year-old male having a painless ulcer in the perianal region for last 11 months reported with severe pain in the ulcer for last 5 days and found that worms were crawling out of the ulcer since two days. He was diagnosed as a case of squamous cell carcinoma of the perianal region with human myiasis. The treatment consisted of manual removal of the larvae by topical application of turpentine oil, oral therapy with antibiotics and surgical excision of the ulcerative growth.

Key Words: Myiasis, Anal cancer, Housefly and tropical country.

Case Report

A 65-year-old man of low socioeconomic status having poor living conditions presented to our hospital, with severe and persistent pain in then perianal ulcer for last 5 days. He had a history of a painless ulcer in the perianal region for 11 months.

On examination, a 4.5 cm ovoid, polypoid, ulcerated mass was seen in the perianal region. The necrotic ulcer was studded with fecal matter and moving worm like objects (maggots) deeply penetrated in the wound (Figure 1). Based upon the history and presence of maggots, provisional diagnosis of anal canal malignancy with myiasis was made. The patient’s anal Pap smear revealed high-grade squamous intraepithelial lesion and this was confirmed by anal biopsy guided by 3% acetic acid using high-resolution anoscopy.

A cotton gauze impregnated with turpentine oil was placed over the ulcer for approximately 10 minutes. Around 20 to 22 maggots were manually removed with the help of tissue holding forceps and taken for entomological examination (Figure 2). The same procedure was repeated for two more days and a total of 43 maggots were extracted from the wound. Further management included local full-thickness excision of the lesion. The wound was allowed to heal by secondary intention.

Taxonomy

Maggots were examined by a zoologist and revealed as housefly. They belong to Phylum: Arthropoda, Subphylum: Mandibulata, Class: Insecta, Subclass: Pterygota, Division: Endopterygota, Order: Diptera, Genus: Musca, Species: Nebulo.

Discussion

Musca Nebulo is the commonest Indian housefly. They are seen in abundance in human dwellings and are very active during summer and rainy season1. The lifecycle of a fly begins with egg stage followed by the larvae, pupa and final-
ly the adult fly. The conditions required for egg laying and survival of the larvae includes moisture, necrotic tissue and suitable temperature. Thus wounds, open sores, scabs, ulcers contaminated with discharges facilitate growth of these larvae. Patients with human myiasis often are elderly with lesser facilities of hygiene and wound care. This holds true with our patient too.

The developmental transition via the larval stage requires an intermediate host. The perianal ulcer contributed for the mechanical support and suitable substrate and temperature for the survival of the larvae. The stage of larvae lasts for six to eight days during which they are parasitic to human beings. The larvae have backward directed segmental hooks with which they anchor themselves to the surrounding tissue. They are photophobic and tend to hide deep into the tissues for a suitable niche to develop into pupa. The presence of these hooks makes manual removal of larvae from the host difficult. These larvae release toxins to destroy the host tissue. Proteolytic enzymes released by the surrounding bacteria decompose the tissue and the larvae feed on this rotten tissue. The infected tissue frequently releases a foul smelling discharge. So when multiple maggots are detected as observed in our case, elimination can be achieved with agents like turpentine oil or topical irritants such as ether, chloroform, olive oil, calomel, iodoform and phenol mixture.

In addition to the manual removal of the maggots, broad-spectrum antibiotics and appropriate surgery for the basic pathology is also required.

**Conclusion**

Myiasis, the infestation of live human and vertebrate animals with dipterous fly maggots is common throughout the tropical region. This misery is generally associated with traumatic injury, erosive or ulcerative lesions or hemorrhage. Infestation with maggots causes severe pain and mental agony among humans. Our cases illustrate the importance of hygiene and sanitation in tropical countries with high fly population.

**References**


