

Myiasis



Myiasis is the invasion of organs and tissues of humans or vertebrate animals by fly larvae (maggots). Elderly people who are bedbound, have physical disability or lack self-care ability are more vulnerable to fly invasion of their body parts not protected by skin, such as wounds and mucous membranes.



Causative agent

Many types of flies can cause myiasis in humans or animals, such as *Oestridae*, *Calliphoridae* and *Sarcophagidae*. In Hong Kong, *Chrysomya bezziana* of the family *Calliphoridae* is a common species that causes human myiasis.

Development of disease

The life cycle of *Chrysomya bezziana* comprises four stages, namely, egg, larva, pupa and adult. An adult female fly only lays eggs on live animals, usually on superficial wounds, mucous membranes or body orifices such as the mouth, the ear and the nose of debilitated persons. The eggs usually hatch within 24 hours and the larvae burrow into the host's tissue and feed on the host's dead or living tissue.

Clinical features

Penetration of the host's tissue and feeding activity of the larvae may cause serious tissue damage, often accompanied by putrid smelling discharges and ulcerations, resulting in loss of organ function, injury to the skin, secondary bacterial invasion and death.

Prevention

To prevent myiasis infestation, members of the public (especially caretakers of susceptible persons and staff of elderly homes while taking care of their residents) are advised to observe the following measures:

• Maintain good personal hygiene

- Bathe daily and keep skin clean
- Maintain good oral hygiene



• Proper wound management

- All wounds should be treated promptly and dressed properly. Wash hands before and after touching wounds
- Wounds should be assessed regularly. Dressings should be kept clean and dry
- Seek medical attention if there is suspected wound infection and delayed wound healing

• Maintain good environmental hygiene

- Keep premises clean
- Store food in refrigerator or cover the food with screen
- Refuse should be kept in containers with tight-fitting lids and disposed of regularly
- Dead bodies of animals should be disposed of properly



• Fly proofing measures

- Install fly screening, insect electrocuting device or fly trap

• Keeping of pet

- All wounds on animals should be treated promptly and properly
- Pets, particularly dogs, have to be examined by veterinary surgeons regularly
- Animals with suspected myiasis should be brought to the attention of veterinarians
- Do not feed stray animals or keep them as pet

Staff of elderly homes should ensure good environmental hygiene, be alert to inmates developing symptoms of the disease and seek medical consultation promptly for inmates feeling unwell.

Further advice on fly prevention and control could also be obtained from the Pest Control Advisory Section of the Food and Environmental Hygiene Department.



Centre for Health Protection Website www.chp.gov.hk

Health Education Infoline of the Department of Health

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