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Hypodermosis in cattle: A case report

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Abstract

Warble fly infestation in cattle is commonly observed throughout the world. In India, majority of warble fly cases reported from northern parts of the country and is caused by the larvae of *Hypoderma lineatum*. This infestation causing severe economic losses to milk and leather industry. This case reports the occurrence and successful treatment of Hypoderma infestation. A Crossbreed cow brought to veterinary hospital with history of soft nodules on dorsolateral part of back region. On squeezing the nodules, larvae came out which was diagnosed as *Hypoderma lineatum* larva and treated successfully with Ivermectin.

Keywords: *Hypoderma lineatum*, parasitic infestation, Mathura, India

1. Introduction

Warble flies belong to Oestridae fly family. They are also called as warble flies, gad flies, heel flies etc. They infest cattle and occasionally infest sheep, goats, horses and humans as well. Warble flies are obligate parasites and larval stages causes parasitic myiasis. There are two major species of warble fly that infest cattle-*Hypoderma bovis* (Northern cattle grub), *Hypoderma lineatum* (common cattle grub) infest horses also. The adult flies doesnot cause any direct harm to the animals but they deposit their eggs on cattle. The larvae migrates into the host tissues and causing damage to internal organs as well as animal health. Hypodermosis, classified as 'internal myiasis' ^[1], affects animal production and welfare. Larval stage migration in host tissues causes pathology in internal organs, skin and also causes deterioration in host immune response. Hypoderma fly infestation causing severe economic losses to the livestock industry worldwide ^[2].

2. History and Clinical signs

A Crossbreed cow aged around five years was brought to the veterinary hospital, Mathura (UP), India with history of Inappetance, restlessness, Increase in body temperature and several nodules over dorsolateral part of the body with severe itching. Animal owner said that the animal scratching her body against the shed walls and other hard objects due to itching. On examination of animals, there were more than 20-25 soft nodules with average diameter of 2.5-3 cm on dorsolateral part of back region. On squeezing the nodules, larva came out which was diagnosed as larva of *hypoderma lineatum*

3. Diagnosis

Based on the history, spot observation, gross appearance of larvae confirmed the identification of the warbles it was diagnosed as *Hypoderma lineatum* larvae. On cross section of last segment of the larva showed the dark black coloured characteristic open 'D' shaped posterior spiracles with deep seated stigmal plates with radially arranged respiratory openings ^[3].



Fig 1: Morphometry of the larva

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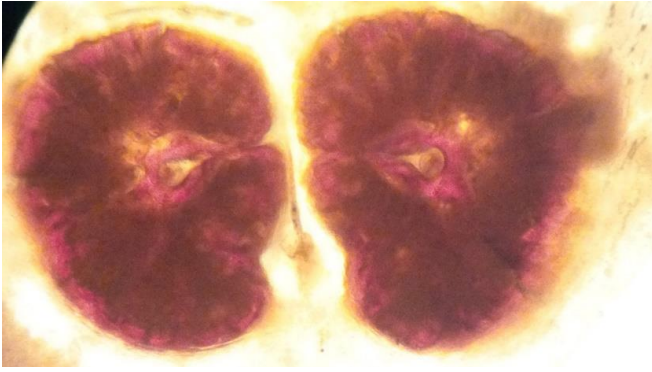


Fig 2: Characteristic spiracles of *H. lineatum*

4. Treatment

The hair clipped around the nodules and larvae removed by using forceps. After removal of larva, 8 ml of Ivermectin injected subcutaneously at the dose rate of 1 ml per 50 kg body weight. Animal recovered successfully after treatment.

5. References

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