Case Number 17

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Case Number 17

Signalment: 18 year old Quarterhorse stallion

History: A circular granular lesion located at the base of the penis where it folds back onto the sheath was removed and submitted for histopathology.
Case Number 17

MORPHOLOGIC DIAGNOSIS: Granulomatous and eosinophilic dermatitis with intralesional nematode larvae, skin, penis
Habronemiasis

Habronemosis is a parasitic disease of horses, donkeys, mules and zebras

Case report of cutaneous habronemiasis in a canine

Phylum: Nematoda
Class: Secernentea
Order: Spirurida
Family: Habronematidae
Genus: Habronema
Habronemiasis

Habronema muscae- House fly (Musca domestica)

Habronema microstoma- Stable fly (Stomoxys calcitrans)

Draschia megastoma- House fly (Musca domestica)
Life Cycle

Adult nematodes produce embryonated eggs within stomach that are passed in the feces and ingested by maggots of the fly.

Fly (house or stable) deposits infective larvae near the mouth to be swallowed or on the skin, in wounds or damp/wet areas.

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Habronemiasis

A catarrhal gastritis may result from heavy infections with adult worms

*Draschia* produces the most severe lesions—tumor-like enlargements up to 10 cm in diameter. Rarely, these nodules rupture and cause fatal peritonitis

Clinical signs usually are absent except when granulomas associated with *Draschia* infection lead to mechanical obstruction or rupture
Cutaneous Habronemiasis

Cutaneous habronemiasis is often referred to as, ‘summer sores,’ and is a common nodular skin disease in the horse.

Larvae emerge from flies feeding on preexisting wounds or on moisture of the genitalia or eyes and migrate into and irritate the tissue, which causes a granulomatous reaction.

The lesion becomes chronic, and healing is protracted.
Clinical Signs and Gross Lesions

- Ulcerative nodules especially in the spring and summer that may appear like granulation tissue and have yellow appearance.
- Lesions are most commonly located on legs, urethral process of the penis, prepuce, medial canthus of the eye, or traumatized skin.
- Pruritus is common—most likely due to a hypersensitivity reaction.
- May see photophobia, epiphora, chemosis with ocular form.
- May see dysuria with urethral form.
Differential Diagnoses

Bacterial granuloma
Fungal granuloma
Pythiosis
Exuberent granulation tissue
Squamous cell carcinoma
Equine sarcoid
Onchocercosis
Diagnosis

Diagnosis based on:

• History
• Physical examination
• Cytologic examination
  Larvae may be present-
  3mm x 60um, spiny tail, motile
• Histopathologic examination
  Biopsy lesions include
  nodular granulomatous dermatitis with eosinophilic
  and mast cell infiltrates and
  intralesional nematodes

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Diagnosis

Diagnosis may be made more challenging by cutaneous habronemiasis secondarily affecting a squamous cell carcinoma or sarcoid.

Molecular diagnosis is in the process of development and a PCR assay has been reported for the diagnosis of gastric and cutaneous habronemiasis.
Treatment and Prognosis

**Treatment Goals:** Control hypersensitivity and eliminate the parasite.

**Prognosis:** is good with appropriate treatment.

Fly control is essential to prevent recurrence.
References


Questions?

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