

***no patient handout*

Orf - Skin

Synopsis

Orf, also known as contagious pustular dermatitis, ecthyma contagiosum, and sore mouth disease, is caused by a parapox virus that infects sheep and goats. Orf is transmitted to humans by direct contact, typically occurring in shepherders, farmers, butchers, and veterinarians. Mild fever (usually 3-4 days) and malaise are associated with infection. Spontaneous recovery usually occurs in 4-6 weeks.

Codes

ICD10CM:

B08.02 – Orf virus disease

SNOMEDCT:

74050005 – Orf

Look For

After a 5 day incubation period, a red to bluish papule develops at the inoculation site, quickly evolving to a flat-topped bulla or pustule. Multiple lesions can occur. Lesions can evolve to 2-4 cm in size. The lesion is often tender. A central umbilication with crusting can occur. Variants include large fungating lesions.

Diagnostic Pearls

Lesions are said to evolve through 6 characteristic stages. In the acute stage, there is a red, weeping surface. The target stage shows a typical peripheral violaceous or grayish-white ring with surrounding erythema. In the regenerative phase, a thin, dry crust may be seen.

Differential Diagnosis & Pitfalls

- **Milker's nodules** (clinically indistinguishable from orf but is acquired from contact with infected udders of cows)
- **Cellulitis or erysipelas**
- **Herpetic whitlow**
- **Blistering distal dactylitis**
- **Majocchi's granuloma**
- **Gout**

- Erysipeloid
- Molluscum contagiosum
- Zoster
- Paronychia
- Felon
- Insect bite
- Fixed drug eruption
- Tinea
- Urticaria
- Angioedema
- Sporotrichosis
- Cowpox
- Furuncle
- Cutaneous anthrax
- *Mycobacterium marinum*
- Cat-scratch disease
- Sweet's syndrome
- Gonococemia

Best Tests

The clinical picture in association with a history of sheep or goat contact is virtually diagnostic. Biopsy for electron microscopy is confirmatory.

Histopathology Findings:

Histology varies with clinical stage/age of lesion.

Early stage

- Acanthosis, prominent spongiosis with vacuolated superficial epidermis

- Cytoplasmic eosinophilic viral inclusion bodies (Guarnieri bodies) within keratinocytes, sometimes intranuclear

Late stage

- Epidermal balloon degeneration and full-thickness necrosis
- Dense diffuse mixed inflammation in dermis
- Elongated rete pegs
- Dermal edema, dilated blood vessels and extravasated erythrocytes

Management Pearls

The clinical picture in association with a history of sheep or goat contact is virtually diagnostic. Biopsy for electron microscopy is confirmatory.

Therapy

Orf is a self-limiting disease, resolving in 4-6 weeks.

For large or persistent lesions, surgery may be indicated. Such techniques include:

- Cryosurgery
- Electrodesiccation and curettage
- Shave excision

Isolated case reports have indicated that topical cidofovir, imiquimod, 40% idoxuridine, or injection with interferon may be helpful.

Treat secondary infection if it occurs.