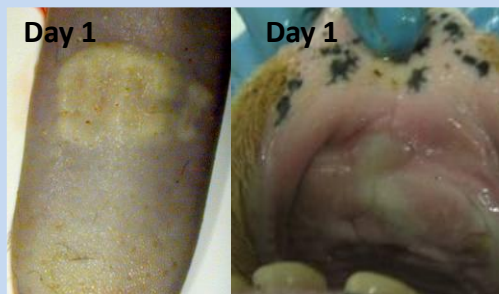


A field guide to estimating the age of Foot-and-Mouth Disease lesions

Lesions and their ages from experimentally infected cattle

Lesions and their estimated ages from cattle observed in the field



Guidelines for estimating the approximate age of FMD lesions

Estimates are generally accurate to within 1 day up to 5 days; thereafter accuracy decreases. Lesions can be complicated by secondary bacterial infection.

Day 1 –The first day Intact fluid filled vesicles are seen to be formed. The overlying skin becomes blanched.

Day 2 - The vesicle is ruptured but much of the blanched epithelium is still intact, having sharp edges (arrowed), and where detached, raw red underlying dermis can be seen.

Days 3-4 - Vesicular epithelium is lost, with subsequent fibrin deposition evident on the exposed dermis. Epithelium starts to re-grow at lesion borders

Day 5-7 - Epithelial regrowth is marked, with loss of fibrin infilling, and subsequent scarification present

Day 7 onwards - Fibrin infilling has disappeared, with new epithelium covering the dermis. Scar formation progresses.

Ages of lesions in experimentally infected pigs



Ages of lesions in experimentally infected sheep



FMD in cattle:

- Initial clinical signs are drooling, excessive salivation, fever, lameness, milk drop, lip smacking, depression.
- Lesions are located on the tongue, dental pad, muzzle, coronary band, heels, inter-digital skin, teats.
- Calves may die of myocarditis.

FMD in pigs:

- Initial clinical signs are fever, depression, lameness, inappetance. Pigs may “dog sit” and huddle together.
- Lesions are located on the snout, tongue, coronary band, interdigital skin.
- The horn of the foot may detach entirely (“thimbling”).
- Piglets may die of myocarditis.

FMD in sheep:

- Clinical signs can be subtle and difficult to detect in some cases. Lesions may only occur in the mouth or on the feet. Signs include lameness, fever and depression, although these may be mild.
- Lesions are located on the dental pad, tongue, coronary band, interdigital skin.
- Lambs may die of myocarditis and pregnant sheep may abort / result in foetal mummification.

Further information on FMD clinical signs and lesion ageing is available at http://www.fao.org/ag/againfo/commissions/en/eufmd/training_material.html.

Produced by the European Commission for the Control of Foot-and-Mouth Disease. Photographs of infected animals are courtesy of the Institute for Animal Health, UK, and Carolina Stenfeldt, Danish DTU.