Foot rot

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| Footrot is a sub acute or acute necrotic infection originating from a lesion in the interdigital skin that leads to a cellulitis in the digital region. Pain, severe lameness, fever, anorexia, loss of condition, and reduced milk production are major signs of the disease. Footrot has a worldwide distribution. The incidence varies according to weather, season of year, grazing periods, and housing system. |

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| ETIOLOGY  *Dichelobacter (Bacteroides) nodosus* is the essential causal pathogen. *Fusobacteriumnecrophorum* is considered to be the major cause of footrot. It can be isolated from feces, which may explain why control is difficult.  *F. necrophorum* aids *D. nodosus* in the invasion of the foot and contributes in the inflammatory reaction.  Other organisms, such as *Staphylococcus* *aureus* , *Escherichia* *coli* , *Arcanobacterium (Actinomyces)* *pyogenes* , |
| |  | | --- | | **EPIDEMIOLOGY**  1-Foot rot is common in all countries, and in all age  2- sheep, goat, cattle, dear are susceptible  3- The source of infection is discharge of bacteria from the active or chronic infection in the feet of affected animals.  4-Conditions of wetness and warmth favor persistence of the bacteria in pasture and increase susceptibility of the feet to injury and dermatitis, thus facilitating spread of the disease from carrier sheep  5-Foot rot is commonly associated with lush or improved pastures, irrigated pastures, and clover-dominant pastures. Long mature grass may result in interdigital abrasions as it is dragged through the interdigital space and facilitates infection.  PATHOGENESIS  Injury to the interdigital skin provides a portal of entry for infection. Maceration of the skin by water, feces, and urine may predispose to injuries, and allows infection with *F. necrophorum*. This initial local dermatitis associated with infection with *F.* *necrophorum* at the skin and the skin-homjunction may progress  no further, but the hyperkeratosis induced by this infection facilitates infection by *D. nodosus* if it is present. | |  |

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| **Clinical Findings:**  1- In a flock, a sudden onset of lameness of several sheep is the usual presenting sign of foot rot. |
| |  | | --- | | 2- The fore- or, more commonly, the hindlimbs can be affected, but more than one foot is rarely involved at the same time in mature cows.  3- However, footrot can occasionally develop in several feet in calves.  4- The first sign is swelling and erythema of the soft tissues of the interdigital space and the adjacent coronary band.  5- The inflammation may extend to the pastern and fetlock.  6-Typically, the claws are markedly separated, and the inflammatory edema is uniformly distributed between the 2 digits. 7-The onset of the disease is rapid, and the extreme pain leads to increasing lameness. In severe cases, the animal is reluctant to bear weight on the affected foot.  8- Fever and anorexia are seen.  9- The skin of the interdigital space first appears discolored; later, it fragments with exudates production. As necrosis of the skin progresses, sloughing of tissue is likely to follow.  10- A characteristic foul odor is produced. |  |  | | --- | | 11-If the disease proceeds unchecked, weight loss is severe and milk yield is significantly reduced. Milk production may not recover during the current lactation.  12-Open lesions can be infected with secondary invaders. |  |  | | --- | |  | |  |

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| **Diagnosis:**  Bacteriological examination is not usually necessary for diagnosis but direct smears of the lesion will usually reveal larg numbers of a mixture of *Fusobacterium* and *Bacteroides spp*. The characteristic site, nature, and smell of the lesion, the pattern of the disease in the group and the season and climate are usually sufficient to indicate the presence of true foot rot.  **Differential diagnosis**  **sheep**  • foot abscesses  • Bluetongue  • Foot and mouth disease  • Ulcerative dermatosis  • Laminitis  • Lameness associated with Erysipelothrix insidiosa, and occurring after dipping  **cattle** |
| |  | | --- | | * infected sand cracks * white line disease * retroarticular abscesses * foreign bodies in the interdigital space * infection of the distal interphalangeal joint can have a similar appearance if viewed from a distance. | |  |

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| **Treatment:** |
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| **Prevention and Control:** |
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