

Pseudomonas aeruginosa or green fur syndrome

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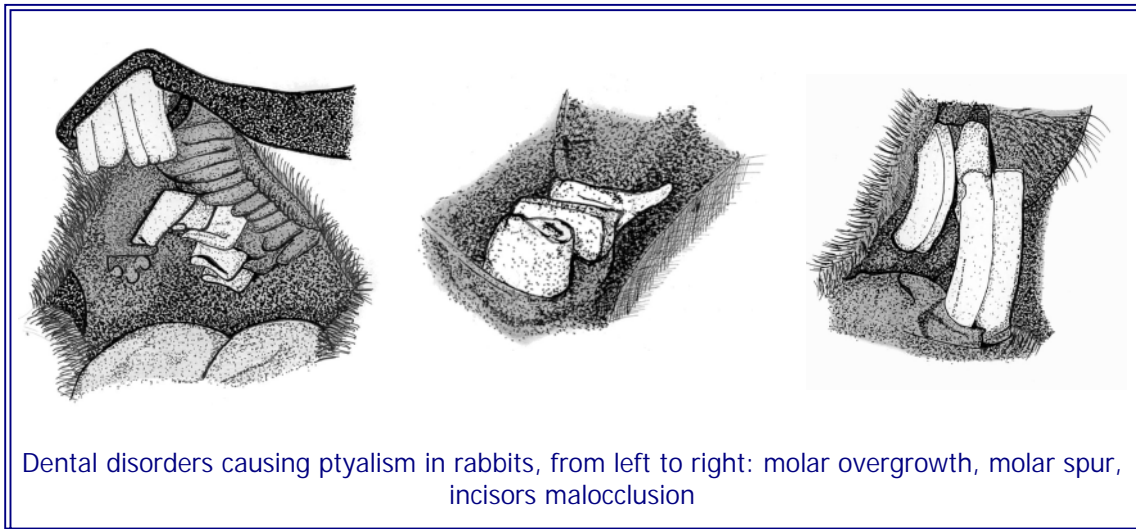
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This skin disorder is caused by bacteria like *Staphylococcus* spp., *Streptococcus* spp., and mainly *Pseudomonas aeruginosa*. The later is a Gram-negative, opportunistic pathogen that lives in aerobic and poor nutritional conditions (it is able to grow in distilled water). The bacterium produced 2 pigments, pyoverdinin and pyocyanin, when living in an environment with a low content of iron, which color the hair and pus oozing out of infected skin or abscesses in a characteristic blue-green.



Exudative (relating to the oozing of fluid and other materials from cells and tissues) moist dermatitis is mainly observed in rabbits exposed to constant moisture, for instance:

- Leaking water bottles, or inadequate crock,
- Overweight
- Large dewlap (fold of skin which hangs under the throat of female rabbits.),
- Ptyalism, due to (severe) dental problems, leading to excessive production of saliva,



Diagnosis

The clinical signs should be sufficient for diagnosis. Even so, a bacterial culture is advisable, as a precautionary measure. The cultures of isolated bacteria will nevertheless help a proper identification of the bacterium. Sensitivity tests will furthermore help determine the most efficacious antibiotic. The bacterium is indeed difficult to treat, as it has naturally acquired resistance to many antibiotics, while living in the soil, among bacteria, yeast and fungi that secrete natural antibiotics.

Parts of the body affected by this bacterium are the dewlap, and the abdomen. Lesions are localized and diffuse and the skin is erythematous and moist. It may be accompanied by the presence of deep ulcers or abscesses. Secondary bacterial infection is possible when the condition is left untreated, with the formation of skin abscesses.

Treatment

The fur is carefully clipped and the inflamed skin is treated with topical antibiotics. If the infection by *Pseudomonas* spp. is severe, the topical treatment should be accompanied by an aggressive systemic antibiotic



therapy.

The most effective antibiotics remain fluoroquinolone (e.g. enrofloxacin), gentamycin, and amikacin, although some strains are resistant to those too. While treating the skin problems, it is necessary to look for the primary cause of infection. This includes:

- Meticulous inspection of the teeth of the rabbit, in order to detect defects of the incisors (malocclusion), the presence of spurs or of a tooth root abscess,
- Verification of the drinking habits of the rabbit (crock or water bottle),
- Analysis of the water that the rabbit is drinking for the presence of *Pseudomonas* spp.

The disease should not be neglected and left untreated. After the first invasion of the skin, the *Pseudomonas* spp. bacterium tends to invade the tissues deeper and will use the circulatory blood system to disseminate throughout the body.

Acknowledgement

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Further information

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