

TITLE: *Trichosporon faecale* INFECTION IN ROOSTER

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ABSTRACT:

Fungal skin infections in poultry are not frequently reported and most of them are related to *Aspergillus* spp. and dermatophyte fungi. We report a case of infection by *Trichosporon faecale* in a rooster with progressive weight loss. The physical examination revealed a lesion on one of the legs and some dark spots on the feathers and crest. Culture of skin scraping from the lesions of leg and fragments of the base of the feathers were cultured on Sabouraud agar with chloramphenicol and Mycosel®, incubated at 37°C. After 24h, beige-colored wrinkled yeast colonies were visualized in both media. Fragments of the colonies were stained with lactophenol cotton blue, and microscopically thin septate hyphae were visualized with numerous arthroconidia. Based on the macro and microscopic morphology the presumptive identification of *Trichosporon* was suspected. To identify the species we performed DNA extraction using phenol-chloroform method from the suspected colonies. PCR reaction was performed using the universal fungal primers for ITS region. In the electrophoresis, 600 bp amplicon was visualized, purified and sequenced in an ABI 3500 automatic sequencer (Applied Biosystems). The consensus sequences were evaluated at GenBank using the BLASTn tool. Both sequences were confirmed with 99% identity as *Trichosporon faecale*, accession number: KY105736.1. The animal was treated topically by bath with shampoo once a week and cream on lesions twice a day, both with ketoconazole. After two weeks of treatment it was observed an improvement of the lesions and feathers. To date this is the first report of *Trichosporon faecale* in rooster. Our report shows the importance of molecular biology to achieve the correct diagnosis and the favorable response to ketoconazole therapy.

Keywords: poultry, *Trichosporon faecale*, DNA extraction, ITS sequencing