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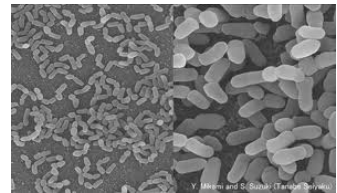
Rhodococcus equi in Camels



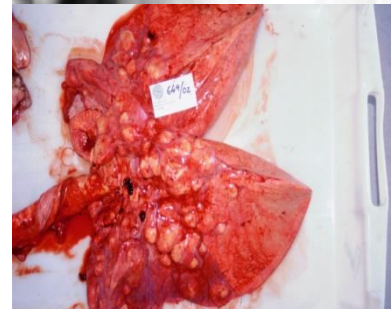
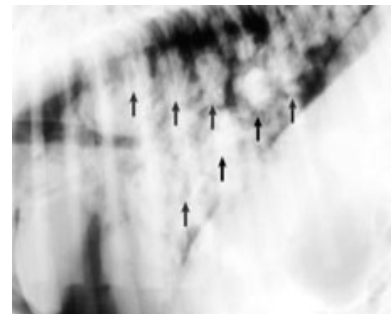
Dr. Medhat Elshemy

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Rhodococcus equi



- **G+ve** , facultative intracellular (multiply inside macrophage).
- Can live in soil for approximately one year.
- High **resistant to antimicrobial**.
- Cause chronic pyogranulomatus pneumonia and enteritis sometimes including other organs like (Joint, spinal cord, lymph node, eye, liver, kidney,..).
- Can cause **sudden death**.
- **Foal 1-6 months** with clinical signs in 4-12weeks.
- Immunosuppressive micro-organism.
- **Zoonotic** especially with patient of aids.
- **High mortality** rate in foal sometimes reach to 80%.
- Decrease mortality firstly by **erythromycin + rifampicin**, 1997.
- **Treatment** with erythromycin and rifampin (10mg/kg po twice daily) should be continuing for 6-8 weeks.
- Recently by **Azythromycin + rifampicin**, 2000.
- **Azythromycin** 10mg/kg daily for 5 days followed by 3 doses with 48hrs intervals.
- Infection depends on immunity of foal.
- **Mice are carrier**.
- **Inhalation or digestion** of large numbers of bacteria is a route of infection.
- **Diagnosis:** 1- CBC (high platlet) 2- Leukocytosis with neutrophilia 3- Fibrinogen (high) 4- Histopathology 5- cultivation 6- isolation 7- serology.
- X-rays and Ultrasound helpful in diagnosis.
- Postmortem (shows pyogranulomatus pneumonia).
- Crackling, wheeze auscultation in the both lung.
- **Signs:** 1- fever 2- Cough 3- mucopurulent nasal discharge 4- tachipenia 5- lethargy 6- depression 7- loss of body weight 8- dyspnea 9- lameness or ataxia.
- Prevalence of clinical signs 10-20% in endemic farms with mortality approximately 28%.
- **Control:** monitoring of fibrinogen, WBCs, Neutrophil, X-rays to detect early infection. Or using of (Rhodococcus equi hyper immune plasma) HIP in farms under risk or endemic with R.equi with good value.
- **Control:** Gallium maltolate orally (stop multiplication of bacteria and has anti-inflammatory effect) at the 1st 2weeks of life of good value.
- **Control:** high sanitation, hygiene (low dust, sand contaminated with feces).





Evaluation of tulathromycin in the treatment of pulmonary abscesses in foals

Monica Venner  , Regina Kerth, Erich Klug

Equine Clinic, University of Veterinary Medicine Hannover, Foundation, Bischofsholer Damm 15, Hannover D-30173, Germany

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Abstract

Tulathromycin is a new injectable macrolide antibiotic used for the treatment of pulmonary diseases of swine and cattle. In this study, 37 foals with sonographic evidence of lung abscesses were treated with tulathromycin (2.5 mg/kg intramuscularly [IM] once weekly, group 1) and 33 foals (group 2) with a combination of azithromycin (10 mg/kg per os [PO] once daily for the first seven days of therapy, thereafter every other day) and rifampin (10 mg/kg PO twice daily). The bacterial aetiological agent was not determined. The foals were only mildly sick and the median number of pulmonary abscesses was 1.4 (group 1) and 1.6 (group 2). Thirty foals in each group were treated without modifying therapy protocols until all clinical signs of disease had subsided. Tulathromycin was administered for a mean of 53 days, and azithromycin/rifampin for 42 days. The following side effects were associated with tulathromycin (279 IM injections): self-limiting diarrhoea in 11 foals; elevated temperature in six foals, and swellings at the injection site in 12 foals. This study provides some evidence that tulathromycin is well tolerated and appears promising for the treatment of pulmonary abscesses in foals.

Rhodococcus (Corynebacterium) equi in camelids:

R.equi affects also new world camelids (Hong and Donahue, 1995; Cuteri et al.,2001), but there were no reports of R.equi infection in old world camelids yet. Four cases of disseminated R. equi infection in adult breeding dromedaries occurred at one camel farm near Dubai within 16 months of each other (Kinne et al.,2011). At necropsy the lungs were diffusely consolidated with large caseous areas. Histology revealed severe suppurative to necrotizing pneumonia with multiple encapsulated abscesses. Immunohistochemistry enabled the detection of R.equi antigen in the lung section. High numbers of R.equi were isolated from the lung lesions as well as the liver, spleen and mediastinal lymph node. The isolated strains were PCR- positive for the specific virulence plasmid of R.equi.

(J.Kinne and U.Werney) (Central Veterinary Research Laboratory CRVL), Dubai, UAE.

The Rhodococcus (Corynebacterium) equi also found in lung, liver and spleen of a lama at University of California. (Medicine and Surgery of Camelids, Murray E. Fowler, 3rd edition).

Treatment:

As shown in fast facts about treatment R.equi bacteria by Azythromycin and Rifampicin but now there is a new trend of treatment by using Tulathromycin (R/DRAXXIN – Pfizer) s.c injection 2.5 ml / 100 kg B.W one shot once per week, and the results were promising. (Monica Venner, Regina Kerth, Erich Klug, University of veterinary medicine, Hannover, Germany, 11 Oct. 2006).

**Rapid onset
Long action**



**more convenient
only one injection
every week.**

affordable cost price

† animala de 400 kg por frasco de 100 mL.