

Quebec

Isolation of *Pasteurella caballi* in a horse

Members of the genus *Pasteurella* are commonly isolated from a variety of animal species, including cattle, sheep, swine, poultry, dogs, cats, and rabbits, but are rarely isolated from horses (1). In 1989, Schlater reported the isolation of aerogenic *Pasteurella*-like organisms from horses (1). The same year, the name *Pasteurella caballi* was proposed (2), and it was made official in 1990 (3). The majority of isolates originated from the respiratory system.

Recently an 11-year-old male thoroughbred was examined at the Faculty of Veterinary Medicine of the University of Montreal with a history of having had a cough, nasal discharge, and exercise intolerance for one month. **The respiratory auscultation was abnormal, and a tracheal washing revealed the presence of *P. caballi* in association with an alpha-hemolytic streptococcus.** The biochemical characteristics of the *P. caballi* isolate are presented in Table 1. Treatment with antibiotics (trimethoprim-sulfamethoxazole, 5mg/kg body weight, q8h, PO) was initiated, and the pulmonary condition gradually improved.

Currently, all *P. caballi* isolates have been recovered from equine clinical specimens. Their frequent isolation from respiratory sources suggests that this microorganism, like other *Pasteurella* spp., is an inhabitant of the mucous membranes of the upper respiratory tract (2). The isolation of *P. caballi* in high numbers and in pure culture from horses with upper respiratory tract infection, pneumonia, peritonitis, and a mesenteric abscess suggests that this bacterium could play a significant role in the pathogenesis of those infections. The clinical significance of *P. caballi* is less certain in instances in which the organism is present in mixed cultures (2).

Table 1. Biochemical characteristics of *Pasteurella caballi*

Test	Quebec isolate 93-2413	Expected results % positive (1)
Yellow pigment	+	69
Hemolysis	-	0
MacConkey agar (growth)	-	0
Oxidase	+	100
Calalase	-	0
Indole	-	0
Urease	-	0
Nitrate reduction	+	100
Gas from glucose	+	100
Acid from arabinose	-	0
Acid from glucose	+	100
Acid from lactose	+	100
Acid from maltose	+	100
Acid from mannitol	+	92
Acid from raffinose	+	69
Acid from sorbitol	-	0
Acid from trehalose	-	0
Acid from xylose	+	61

References

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Saskatchewan

Trichomonas fetus in bulls in Saskatchewan

Apparent poor conception rates are often reported in cows on community pastures in Saskatchewan and Manitoba. A complete description of the problem is rarely possible, because cows and calves leave the pastures in the fall and are likely commingled with animals remaining on the farm. A complete reproductive status of the entire group may or may not be available, either after pregnancy testing in the fall or after calving in the spring. On the basis of such incomplete evidence, western Canadian veterinarians are expected to make recommendations to prevent conception failure in future

years. Therefore, many of the cow herds have undergone a wide-ranging immunization program, often with little measurable efficacy.

As part of an on-going research project, bulls from a community pasture with apparent poor conception rates were subjected to a standard breeding soundness evaluation. In addition, preputial washings were obtained for bacterial and parasitological isolations. Samples collected from 43 bulls at Ormiston, Saskatchewan, on May 20, 1993, revealed that five bulls were positive for *Trichomonas fetus*. Upon reexamination two weeks later, *T. fetus* was recovered from only one bull. These samples were confirmed as positive at Montana State University (C. Speer, personal communication). To the

best of our knowledge, this organism is rarely isolated from preputial washings of bulls in western Canada. Bovine trichomoniasis has been considered an infection "exotic" to western Canada.

The sampling technique used was the "douche" method (1). An infusion pipette was introduced into the preputial cavity and 60 mL of sterile saline was injected. The preputial opening was occluded and the contents vigorously agitated within the sheath. This washing was allowed to flow into a milk collection vial, from which 2 mL were decanted into a test tube with a screw-on top. The test tubes were filled with a CPLM (2) culture medium. Samples were kept at a protected ambient temperature during transport and incubated at 37°C in the laboratory for at least four days. The organisms were examined and identified under dark-field microscopy, using characteristics previously described (2).

Veterinarians in western Canada dealing with community pastures or grazing associations might be well-advised to sample bulls for *T. fetus* as part of a normal breeding soundness evaluation. Sampling and culturing bulls during the middle of the breeding season, while bulls are at the peak of sexual activity, may not reveal many organisms, since it is speculated that the numbers of *T. fetus* decline with sexual activity.

Control of this reproductive disease entails turning out only known *T. fetus*-free bulls with uninfected cows

(3). Cows with calves at foot should be placed in one breeding field, since there is a relatively high probability that they are free of disease if they have carried a calf to term. Cows still to calve, cows exposed to bulls before arrival at the pasture, and dry cows, whose history is unknown, should be assumed to be potentially infected and should be isolated in a separate breeding field in order to limit transmission to clean bulls (3). This would constitute a first step to disease control.

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