LETTERS TO THE EDITOR

Prevalence of *Haemophilus somnus* in the Semen of Bulls in Saskatchewan

DEAR SIR:

The diagnoses of haemophilosis, in all their various manifestations have been increasing in frequency (6,8). Of primary concern is the encephalitic form which can cause considerable mortality in susceptible cattle. *Haemophilus somnus* has also been shown to cause abortion occasionally (2,5,9) and has been associated with metritis and orchitis (2,5,7,8). *Haemophilus somnus* has been loosely associatated with an infertility syndrome (1,2,5,6).

While it is suspected that *H. somnus* may be moving into a new ecological niche in the bacterial microenvironment of western Canadian cattle, there are gaps in our understanding of carrier cattle, mode of spread, pathogenesis and susceptibility. Investigators have attempted to culture the organism at strategic times in the production cycle of beef cattle with varying degrees of success (3,4,7). The purpose of this letter is to report our results of culturing 780 semen samples collected from bulls on routine field evaluations in the late spring and early summer of 1981.

Bulls gathered in groups at various locations throughout Saskatchewan were evaluated for breeding soundness. They were electroejaculated and raw semen samples were presented to the Diagnostic Microbiology Laboratory at WCVM anywhere from eight to 96 hours after collection. In some cases the samples were placed in Amies charcoal transport medium. They were plated and incubated in a CO_2 incubator within 18 hours of arrival on cystine heart agar with 5% bovine blood and 0.5% yeast extract (CHABY). The typical colonies were replated on CHABY and further identified in a routine fashion. Some samples were stored at -70°C until they could be processed.

The microbiological results of the semen samples are presented in Table I. One hundred and seventy-one samples or 24.6% were overgrown with *Proteus* sp., therefore were effectively eliminated from the study. The prevalence rate of *H. somnus* cultured ranged from zero to 24.2% with a mean of 9.9%. The presence of *H. somnus* in the reproductive tract was not associated with an increased number of "questionable" or "unsatisfactory" bulls, Table II. The age distribution of *H. somnus* positive bulls was similar to the overall age distribution of all bulls evaluated. These results are similar to those reported by Corboz and Wild (2).

TABLE I
PREVALENCE RATE OF *H. SOMNUS* IN NONCONTAMINATED SAMPLES BY GROUP OF BULLS

Bull Group	No. Bulls Cultured	*Proteus* sp. Contaminated Samples	*H. somnus* positive samples	*H. somnus* from *Proteus* free samples (%)
Grainland	61	28	8	8/33 (24.2)
Matador	124	41	11	11/83 (13.3)
Nokomis Hillcrest	101	Not Recorded	8	8/101 (7.9)
Millie	43	15	0	—
Pinestone	36	20	3	3/16 (18.8)
Pathlow	48	8	6	6/40 (15.0)
McDonald Creek	67	24	4	4/43 (9.3)
Lizard Lake	64	19	5	5/45 (11.1)
Arena	92	16	0	—
ROP Test Station	58	Not Recorded	7	7/58 (12.0)
Total	694	171	52	52/523 (9.9)
Percent		24.6	7.4	

TABLE II
DIAGNOSIS AT SEMEN EVALUATION IN BULLS WHERE *H. SOMNUS* WAS PREVALENT COMPARED TO THOSE WHERE IT WAS NOT

Bull Group	Evaluated Diagnosis Satisfactory (%)	Questionable (%)	Unsatisfactory (%)	Absolute Number (n)
Bulls where *H. somnus* was cultured from semen	71.7	26.0	2.2	46
All other bulls	61.4	27.9	10.7	634

TABLE III
FREQUENCY DISTRIBUTION OF BULL AGE IN *H. SOMNUS* PREVALENT BULLS

Bull Age	*H. somnus* Positive (%)	All other Bulls (%)
1	14.9	6.5
2	8.5	11.5
3	23.4	20.1
4	23.4	20.7
5	4.2	3.6
6	4.2	7.1
7	10.6	14.7
8	8.5	9.3
9	—	5.0
10	2.1	0.6
11	—	0.1
12	—	0.1
n	47	723

No attempt was made to determine where the organism was residing, although it has been suggested that the organism is a normal component of the preputial flora (2). While the possibility of contamination of collection equipment could account for an erroneus increased prevalence, the sequence of positive isolations suggests this did not occur. It is possible that with improved microbiological techniques (e.g. more rapid presentation of better samples to laboratory, plating samples sooner) an even higher prevalence of *H. somnus* would have been determined.

If the organism was present at a prevalence of 9.9% in a battery of bulls, it should occur with a similar or higher frequency in the cow herd under conditions of natural service. *Haemophilus somnus* is probably a common inhabitant of the reproductive tract of cattle (2) and its presence alone should not be associated with reproductive dysfunction in the bull. However, the dissemination of *H. somnus* from the reproductive tract of infected cattle and its relationship to overt haemophilosis in weaned calves and other classes of cattle remains to be elucidated.

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Sincerely yours,

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A Surgical Technique for Excision of Prolapsed Rectum in Swine

DEAR SIR:

Prolapse of the rectum in many breeds and ages of swine constitutes a health problem causing economic loss. An effective amputation method for correcting a rectal prolapse is described. Similar techniques have been described previously (4-5). This technique does not irritate tissue. It is safe and feasible.

Technique: Animals weighing over 25 kg are best restrained in a standing position with a rope tightened around the snout. The tissue between the anal sphincter, and prolapsed gut is thoroughly scrubbed with water and surgical soap. Chlorhexidine (0.5% solution) may be used. A local circular block is made at the anal ring with about 10 mL of 2% lidocaine hydrochloride subcutaneously. Four additional doses of 0.5 mL lidocaine are injected submucosally into the prolapsed gut at the one, four, eight, and 11 o'clock positions, respectively. Three mattress sutures are placed as follows, the first suture enters the tissue of the anal ring and prolapsed gut at the one o'clock position, it travels into the lumen of the gut and exits through the same tissue at about 11 o'clock (Figure 1, B-I). To ensure hemostasis of the dorsal hemorrhoidal artery upon gut amputation, this dorsal mattres suture must be tied securely. The second suture is placed in a similar fashion ventrolaterally to the first at the two and four o'clock locations (Figure 1, B-II). The third suture penetrates at ten o'clock and exits at eight o'clock (Figure 1, B-III).

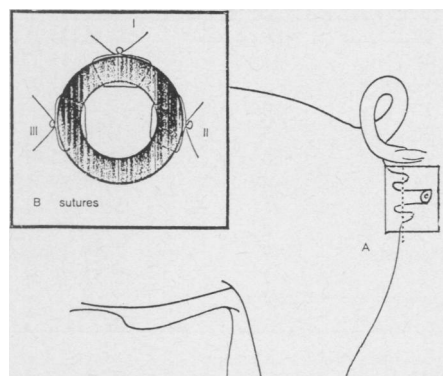

FIGURE 1. A. Lateral view of a rectal prolapse with dotted line demarcating level of suture placement. B. Inlay depicts the position of the three mattress sutures used in this technique.

The second and third sutures are firmly tied and the entire circumference of the prolapsing portion of the gut is cut 0.5 cm posterior to the anal orifice (Figure 1, A).

It is possible to use this technique in pigs of 5 kg or heavier. It is very useful for the pregnant sow, as this simple procedure does not interfere with farrowing. This method has been used over a number of years in 1170 cases and very few postsurgical complications such as constipation, periproctitis, proctitis, or peritonitis developed or were noted. The prolapsed rectum corrected were in various conditions: 1) fresh undamaged, 11%; 2) edematous, 48%; 3) edematous and ruptured, 12%; 4) lacerated, 12%; 5) partially eaten, 4%; 6) infected covered with mucopurulent discharge, 10%; and 7) necrotic with presence of constipation, proctitis, and local peritonitis. The technique was used in all cases. In animals with perianal purulent and necrotic inflammation, antibiotic treatment was used in conjunction with this surgery. Ninety-eight percent of animals so treated recovered.

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