

Survey of Virginia and Maryland Dairy Practitioners on the Treatment of Metritis and a Literature Review

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Introduction

Metritis is one of the most common diseases of dairy cows. Cases of metritis fall into two categories, toxic (systemic) puerperal metritis and acute (non-systemic) puerperal metritis. Treatment of metritis by dairy practitioners varies greatly. To gain a better understanding of the current practices for the treatment of metritis in dairy cows a questionnaire on the treatment of metritis was mailed out to practitioners.

Materials and Methods

The questionnaire asked for treatment protocols for three cases of metritis. The cases were selected to be representative of the range of the different clinical presentations of metritis. The clinical signs for Case One were: seven DIM, normal milk production, normal attitude, no fever, not dehydrated, and a fetid uterine discharge. For Case two they were 7 DIM, decreased milk production, slight depression, no fever, 7% dehydrated, decreased rumen motility and a fetid uterine discharge. The clinical signs for Case Three were 7 DIM, milk production decreased by 75%, moderately depression, fever of 104.5 F, 11% dehydrated, no rumen motility, and a fetid uterine discharge.

Results

Fourty practitioners returned surveys. Survey results for treatment protocols for each case were divided into 5 categories. The categories were systemic antibiotics, intrauterine (IU) therapy, uterine evacuants, NSAIDS, and fluid therapy. Systemic antibiotics were used by 15% of the practitioners in case 1. In case 2 80% of the respondents used systemic antibiotics. For case three the case of severe toxic purperal metritis 98% of respondents used systemic antibiotics. IU therapy was used 25% of the time in case one, 35% of the time in case two, and 30% of the time for case three. Uterine evacuants were the most commonly used therapy overall. For all cases 70% of practitioners used uterine evacuants. NSAID use in case 1 was 5%. Usage of NSAIDS climbed to 28% in case 2 and 75% in case 3.

Fluid therapy followed the same trend with 5% usage in case 1, 63% in case 2 and 80% in case 3.

Significance

Treatment of metritis in dairy cows varied greatly between practitioners. Case one represented a typical case of acute puerperal (non-systemic) metritis. 15% of practitioners used systemic antibiotics to treat this case. There is no evidence that treatment of these cows with systemic antibiotics is beneficial. Antibiotic usage in these cases should be carefully evaluated. Uterine evacuants were commonly used as a treatment for metritis across all cases. Review of the literature did not reveal any evidence that uterine evacuants were beneficial before day eight postpartum. In spite of the fact that ECP had been removed from the market estrogens were still a common drug used to treat metritis. Given the fact that no product containing estrogens for use in cattle exists and the lack of a single study showing the efficacy of using estrogens to treat metritis, these products should not be used. IU therapy of dairy cows for the treatment of metritis has long been a controversial topic among bovine practitioners. Study results of treatment of metritis with IU therapy have been mixed. A recent study showed an improvement in conception rate and milk production from the administration of IU oxytetracycline to cows with metritis (Goshen 2006). There are numerous studies that support the use of systemic antibiotics in the treatment of metritis (Chenault et al). Oxytetracycline, penicillin and ceftiofur all come in formulations that have different carriers, concentrations, and pharmacokinetics. Understanding these differences is important in selecting and using them for treatment of metritis. NSAID therapy has not been well studied as an adjunctive therapy in treatment of metritis. Flunixin was the most commonly used compound. Flunixin is only labeled to be administered IV and has a 36 hour milk withdrawal. More research needs to be done on the efficacy of NSAIDS in the treatment of toxic puerperal metritis. Care should be taken when using these products to ensure that violative residues do not occur in the milk or meat.