It appears that compared to a single injection given at 17-24 d postpartum, there is no added benefit of 3 injections of  $PGF_{2\alpha}$  given at approximately weekly intervals (3-10 d, 10-17 d, 17-24 d) in cows at risk for endometritis.

This study confirms results from previous studies

that suggested further consideration be given to the timing and frequency of PG injections postpartum. In addition, it is necessary to establish the criteria used to select cows for treatment and to determine whether all cows, all normal cows or selected diseased cows should be included in PG postpartum treatment protocols.

## Otitis Media in Dairy Calves: A Preliminary Case Report

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A large dairy herd in north-central Florida has observed otitis media in their pre-weaned heifer calves. The initial clinical sign of otitis media was facial paralysis, presenting as ear droop and epiphora. Affected calves sometimes developed ataxia and other severe neurologic signs indicating a progression of the infection to otitis interna and meningitis. Previous or concurrent respiratory infections were common. In previous years, the incidence of otitis media in this herd has been 0.5 to 1.0%. In the early autumn months of 1994, the incidence of otitis media in the heifer calves increased to approximately 15%. In order to attempt to identify the primary etiologic agent(s) in this difficult-to-treat disease, the owner of the dairy agreed to retain bull calves for an intensive diagnostic workup. Bull calves were treated similar to heifer calves; they were fed the same amount of colostrum and housed such that nose to nose and oral-fecal contact was permitted. Bull calves were chosen for necropsy based upon having early, subtle signs of respiratory disease or otitis media. In some cases, bulls were randomly selected for necropsy based upon pyrexia or signs of depression and weakness. A full necropsy was performed with special emphasis

placed upon the oropharyngeal area, respiratory tract and middle ear. All calves with positive signs of infection on gross necropsy had lung and tympanic bullae cultures taken for aerobic, anaerobic, and mycoplasma growth. Selected cases were also cultured for viruses. Most heifer calves which died or were terminally ill were also necropsied during the autumn of 1994. In many cases, cultures were taken of lungs and/or tympanic bullae. Cultures from both the bull and heifer calves yielded a number of mixed infections. The most common microorganism isolated was Mycoplasma bovis; Actinomyces pyogenes was often found with M. bovis. Of the cases where mycoplasma culture was attempted, 43% of the tympanic bullae and 55% of the lungs were positive. Anaerobic and viral cultures were negative. Whether M. bovis was a primary pathogen or just a secondary invader in the tympanic bullae was not determined. Attempts to isolate M. bovis from calf feeding equipment or colostrum were unsuccessful. A serologic survey of one and 8 week old heifer calves during this same time period demonstrated no strong exposure to the respiratory viruses IBR, BVD, or BRSV.

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<sup>&</sup>lt;sup>a</sup>Lutalyse Sterile Solution supplied by The Upjohn Company, Kalamazoo, Mich.