Combination drug therapy offers an effective means of treating bovine respiratory disease

**What is this research about?**

In the beef cattle industry, a significant amount of money is spent each year on treatment and prevention of bovine respiratory disease and in removal of chronically sick animals. Increased feeding costs are also accumulated because affected animals take longer to reach their final weight. Current treatment methods address the bacterial origin of the disease but not the host inflammatory response. This study looked further at the impact of bovine respiratory disease on feed intake and weight gain, and evaluated the effectiveness of a new approach to treatment that also targets the inflammatory response.

**What did the researchers do?**

Researchers at the University of Guelph purchased 96 female beef cattle and fed them for 12 weeks. 72 cattle were infected with a bacterium known as *M. haemolytica* to experimentally induce bovine respiratory disease. Following infection, various treatments were tested including an antimicrobial drug oxytetracycline, and a combination of this drug with isoflupredone acetate, a corticosteroid.

**What did the researchers find?**

The researchers found that the combination of an antimicrobial drug and a corticosteroid was the most effective treatment for bovine respiratory disease. Cattle given this treatment recovered from fever faster, had less recurrence of fever, and maintained normal eating and weight gain. There were no adverse reactions to the drug.

**Keywords:**

Bovine respiratory disease, antimicrobial and corticosteroid drug treatment, weight gain and feeding

**What you need to know:**

Using a combination of antimicrobial drug and steroid is an effective means of treating bovine respiratory disease and minimizing economic losses.
How can you use this research?

Beef and cattle farmers will be able to more effectively treat their animals for bovine respiratory disease. Using a combination of drugs will lead to a resolution of the infection, as well as maintain daily feeding patterns of the animals so that steady growth continues. As such, cattle farmers will lose less income to the disease and be more profitable.

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