

Infections with Chlamydiae can be effectively eradicated using herd specific autovaccines in cattle populations.

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Objective: In bovines and other animal species chlamydial infection of the uterus can lead to abortion, stillbirth and infertility. Therapy may include placement of antibiotic sticks into the uterus of infected/suffering cows, however, being expensive and often without significant success. A novel, effective and economic method for controlling chlamydial infections in cattle and ewes is a therapeutic autovaccine (AV), which we have developed recently. Since 1997 we have autovaccinated >400 cows and >1000 ewes with high rates of success as stated by the treating veterinarians. In order to evaluate the actual success rate and to examine different ways of application routes we started a program including 36 cows belonging to 4 different herds located in the southwestern parts of Germany. **Methods:** AV were prepared from material from index cases according to our newly developed protocol. Cervical swaps were taken from each cow prior to start of autovaccination and on day 28 post vaccination. Swaps were checked for the presence of Chlamydiae (Chl.) using *Stamp* staining of inclusion bodies (not species specific), which is in routine veterinary diagnostics a recommended method to screen for Chl. 4 groups of animals (n=6/10/10/10) were autovaccinated according to the following scheme:

- a.) 2 positive with autovaccine, 2 pos. with placebo, 2 negative with placebo
- b.) 5 pos. with autovaccine, 3 pos. with placebo, 2 neg. with autovaccine
- c.) 5 pos. with intranasal application, 5 pos. with intravaginal application
- d.) 6 pos. with intranasal application, 4 pos. with intravaginal application

Reports about the autovaccinated cows were sampled from the veterinarians on day 28 after start of AV. **Results:** 24/27 Chl. pos. cows autovaccinated were neg. for the presence of Chl. on day 28 (88.8%), 5/5 pos. cows who received the placebo remained pos., 2 of those were subsequently autovaccinated using the AV and were neg. afterwards. There was no difference between subcutaneous, intranasal or intravaginal administration concerning effectiveness. **Conclusion:** Autovaccines for treatment of chl. infection in cattle are economic and save regardless of the route of administration and might be a useful alternative in chronically infected humans.