



Joyce Parlevliet

Department of Farm Animal Health, Faculty of Veterinary Medicine, Utrecht University, Yalelaan 7, 3584 CL Utrecht, the Netherlands

### **IS TRANSVAGINAL SINGLE NEEDLE ASPIRATION OF OVARIAN FOLLICULAR CYSTS AN ALTERNATIVE FOR THE USE OF HORMONES?**

Worldwide discussions arise about the extended use of drugs (i.e. antibiotics and hormones) in veterinary medicine. The One Health concept makes that we have to be critical on the use of drugs and search for alternative treatments in veterinary medicine. The transvaginal single needle aspiration technique is used for the collection of oocytes in the cow. This technique has been validated for the treatment of follicular cystic ovaries in the former ambulatory clinic of the Farm Animal Health Department. In this study the transvaginal single needle aspiration technique has been compared in 14 cows with the conventional treatment with GnRH (5 ml buserelin acetaat 0,0042 mg/ml, Receptal®, Intervet, Boxmeer, the Netherlands; n=14). Follicular cysts (COF) in cows were detected using rectal examination and ultrasound (5 MHz linear rectal probe, Esaote Pie Medical, Maastricht, the Netherlands) of the ovaries. The fluid of the cyst was aspirated with a special device containing an 18 Gauge needle which was inserted into the COF and the fluid aspirated into the syringe. After treatment, cows were evaluated for the day of 1<sup>st</sup> heat following treatment and pregnancy rates after artificial insemination (AI) at the 1<sup>st</sup> heat following treatment. Cows aspirated showed oestrus significantly earlier than GnRH treated cows,  $14.5 \pm 5.7$  and  $29.2 \pm 14.4$  days (mean  $\pm$  SD;  $P < 0.05$ ), respectively. Pregnancy rates of 1<sup>st</sup> AI after treatment were significantly higher in the aspirated group compared to GnRH treated cows, 78.6 % and 21,4%, respectively. In conclusion, transvaginal single needle aspiration of a follicular cyst is an effective and reliable method of treatment of follicular cysts under practical conditions. Moreover, the use of the aspiration technology may decrease the use of hormones in the cattle industry.