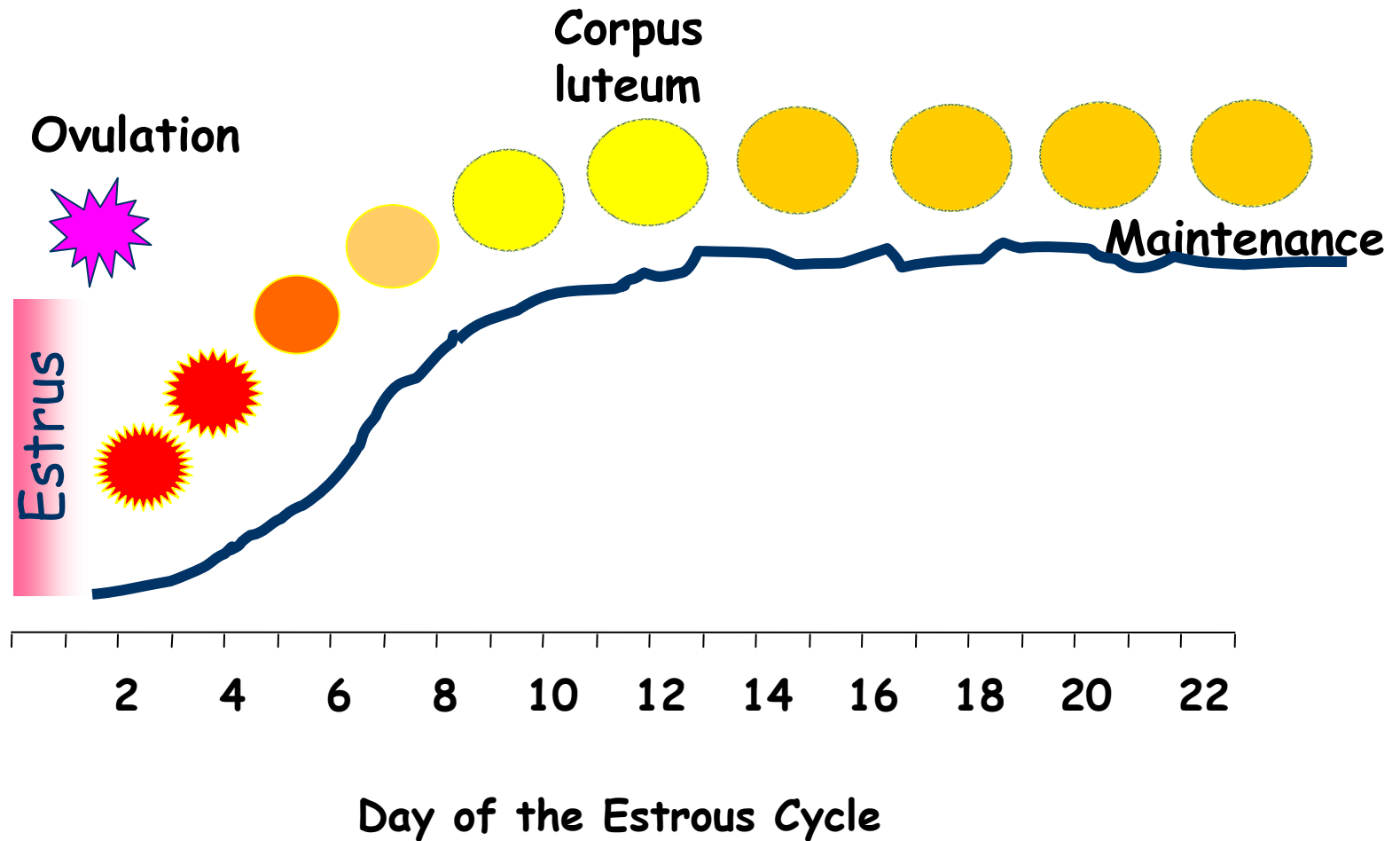


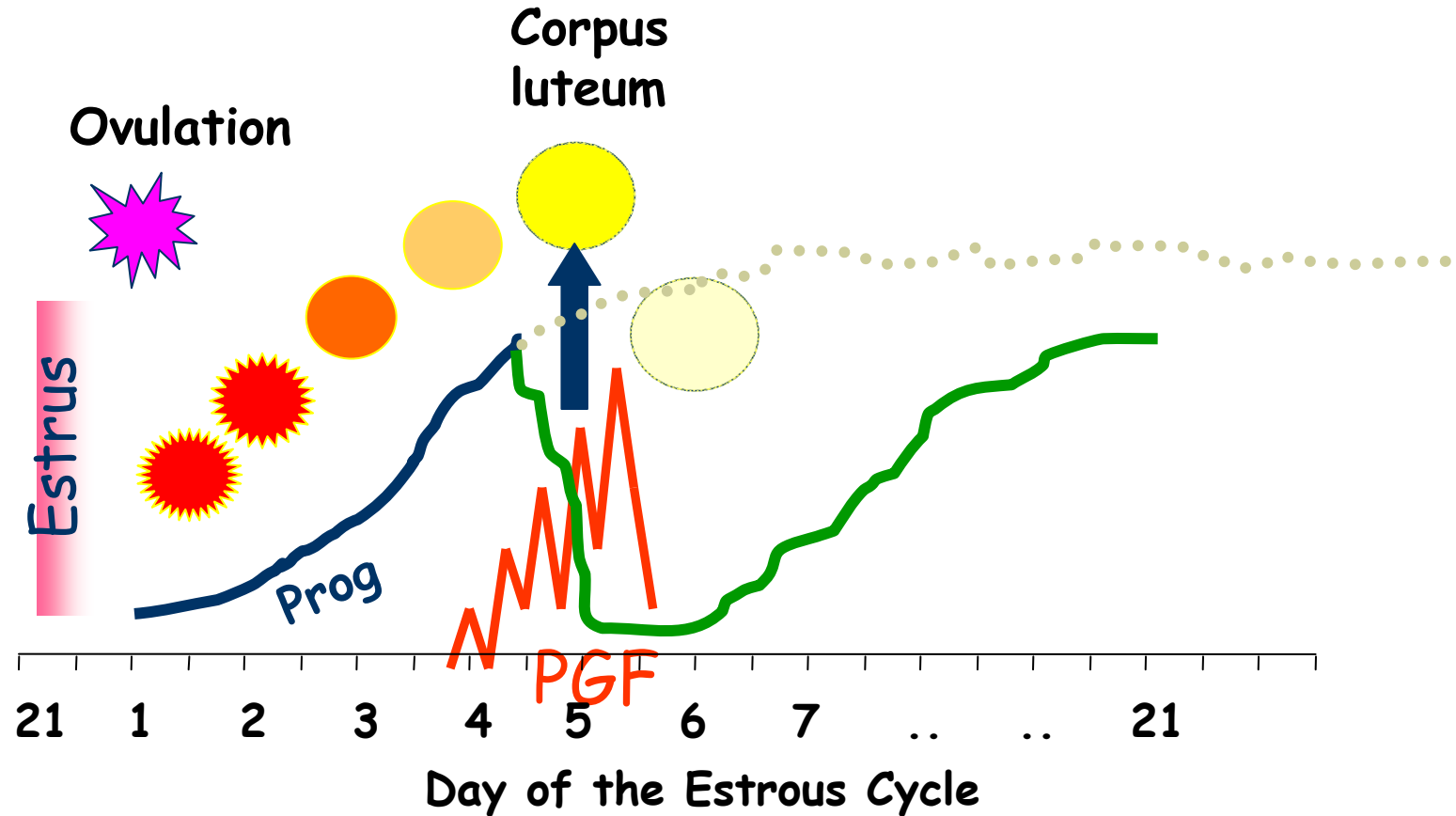
Premature luteal regression in superovulated goats induced to ovulate with GnRH or hCG

M. Saleh, M. Gauly and W. Holtz

CL maintenance (Pregnancy)



Premature CL regression



Objectives:

- ❖ Combination Ovsynch and superovulation
- ❖ Comparison GnRH and hCG for ovulation induction :
 - LH surge
 - Ovulation time
 - Premature CL regression
 - Embryo recovery

Material and Methods

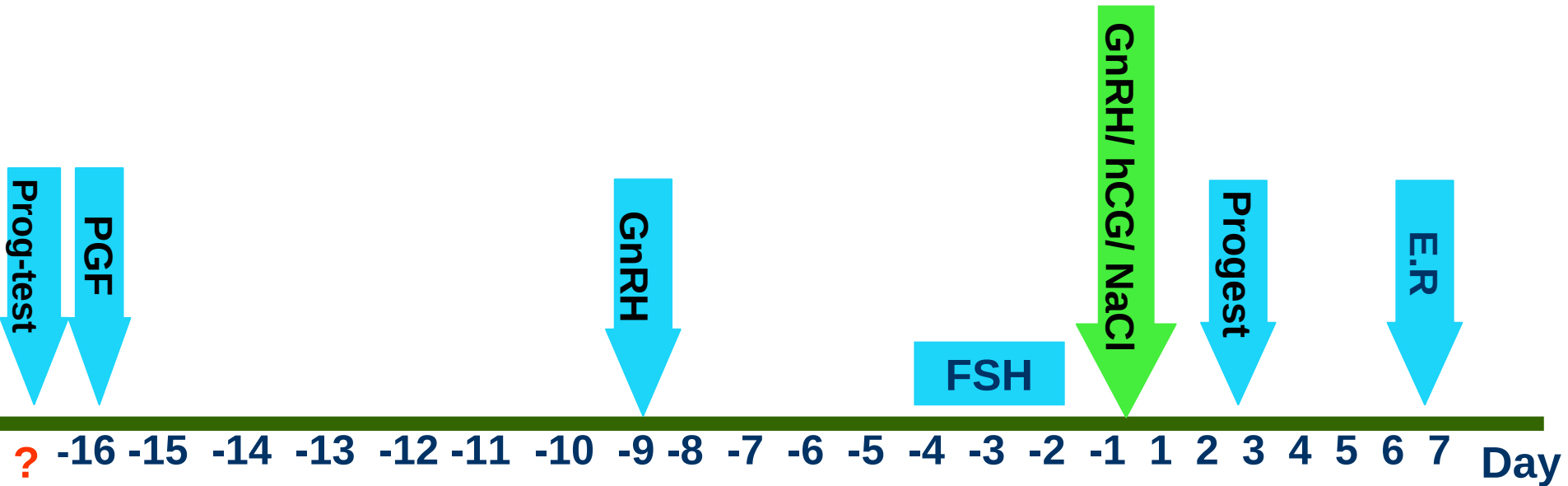
Number of animals/group

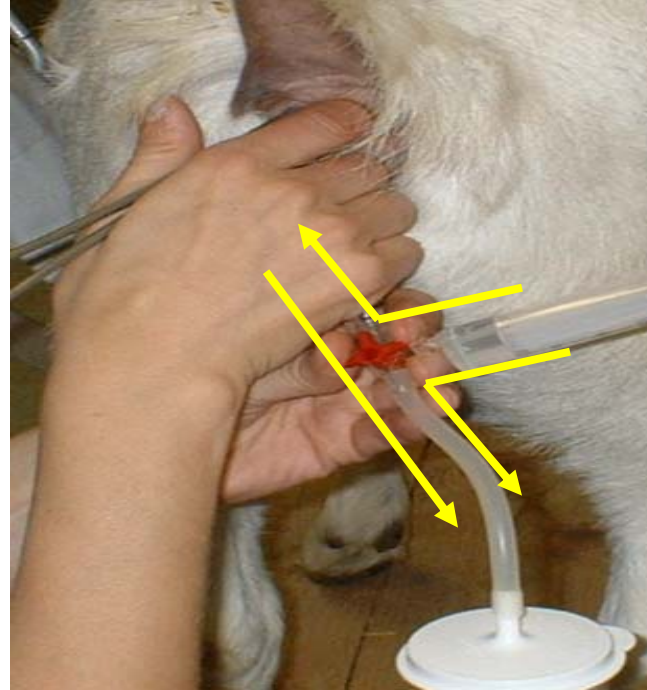
Treatment	Total
GnRH	17
hCG	17
Control	17
<i>Total</i>	<i>51</i>

Hormones for Estrus Synchronisation and Superovulation

- ❑ Prostaglandin $F_{2\alpha}$ (PGF) Dinolytic®
- ❑ Follicle Stimulating Hormone (FSH) Stimufol®
- ❑ Gonadotropin-Releasing Hormone (GnRH) Buserelin®
- ❑ Human Chorionic Gonadotropin (hCG) Chorulon®
- ❑ Progestogen (P4) Crestar®

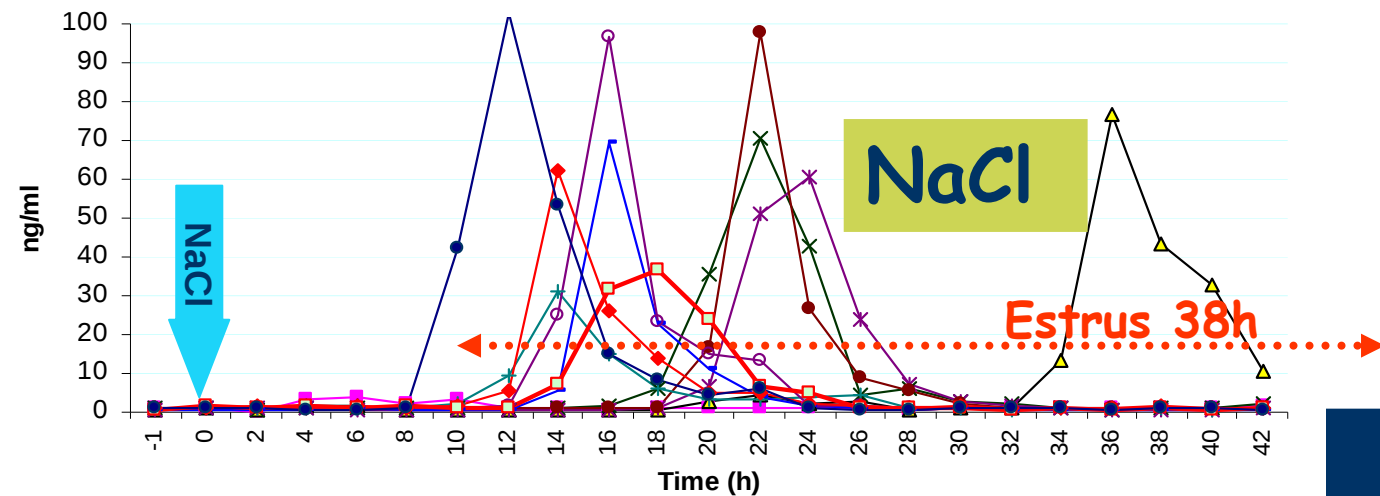
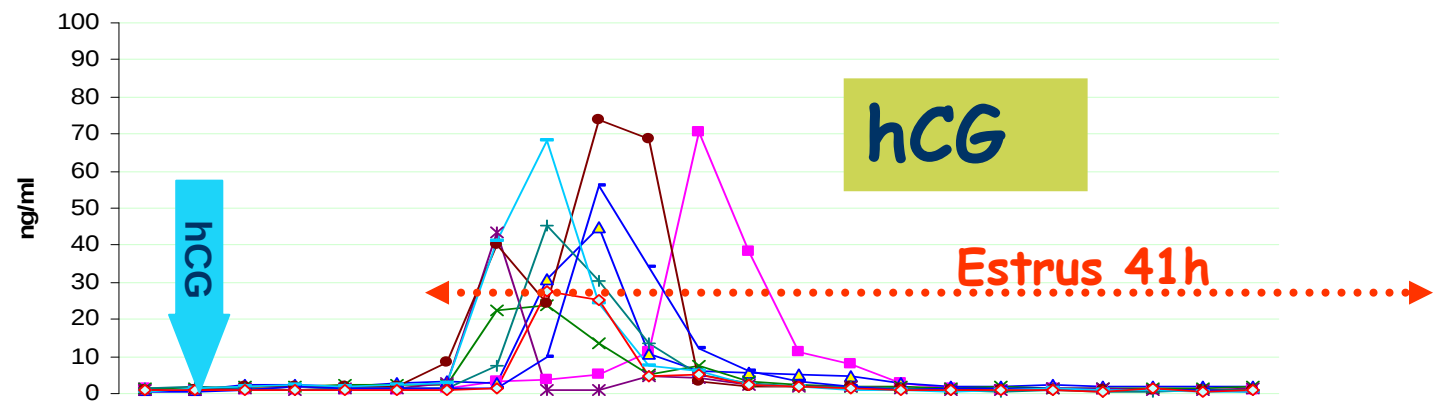
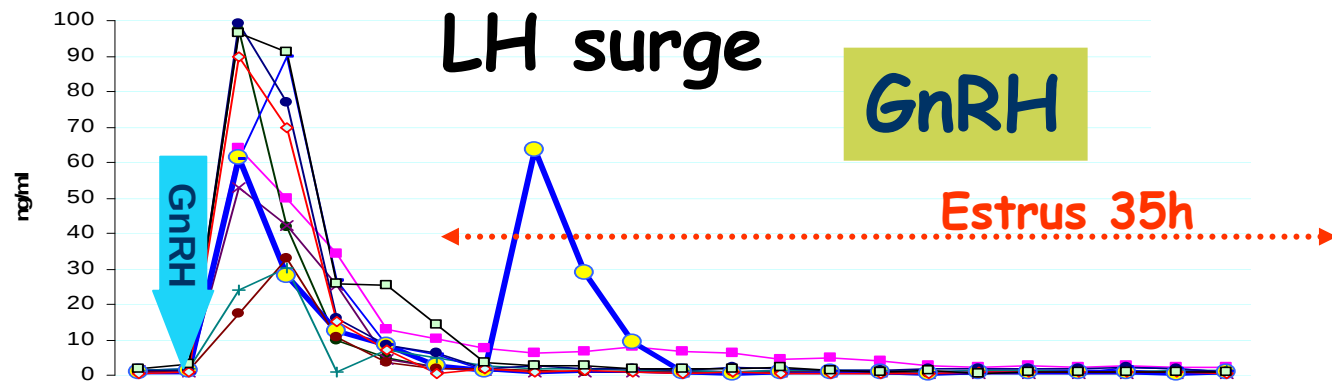
Experimental protocol





Material & Methods

Results



Preovulatory LH-surge (Mean $\pm$ SE)

Treatment	Onset after treatment (h)	Peak after treatment (h)	Duration (h)
GnRH	0.9 $\pm$ 0.1 ^a	2.5 $\pm$ 0.2 ^a	7.2 $\pm$ 0.6 ^a
hCG	11.8 $\pm$ 0.5 ^b	15.1 $\pm$ 0.8 ^b	10.2 $\pm$ 1.0 ^b
Control	16.8 $\pm$ 2.2 ^c	19.4 $\pm$ 2.2 ^c	9.6 $\pm$ 0.7 ^b

Different letters signify significant differences among groups ($p < 0.01$)

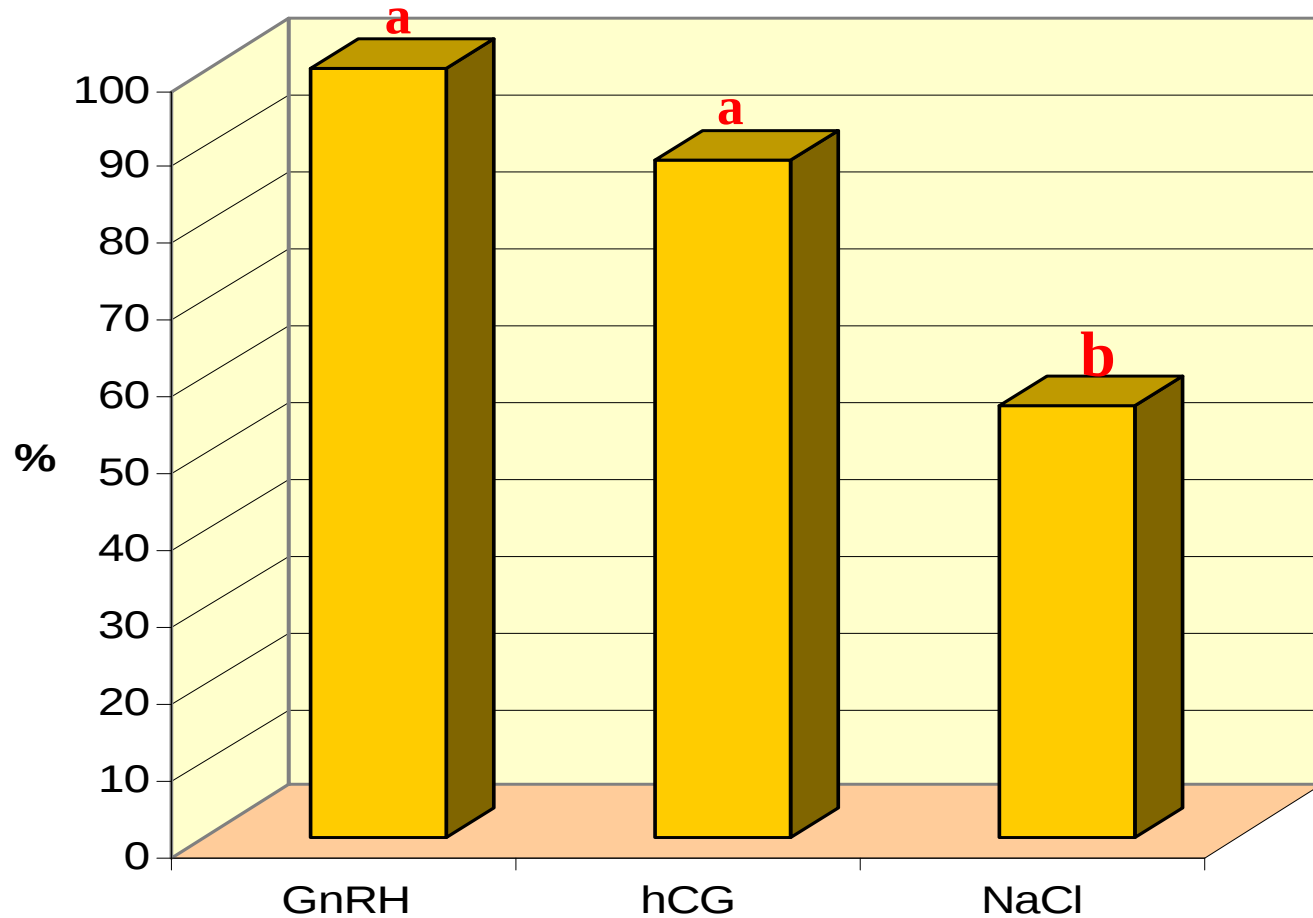
Ovulation Time

(Mean $\pm$ SE)

Treatment	Ovulation after treatment (h)
GnRH	24.0 $\pm$ 2.8 ^a
hCG	34.7 $\pm$ 6.4 ^b
Control	43.4 $\pm$ 9.9 ^c

Different letters signify significant differences among groups ($p < 0.01$)

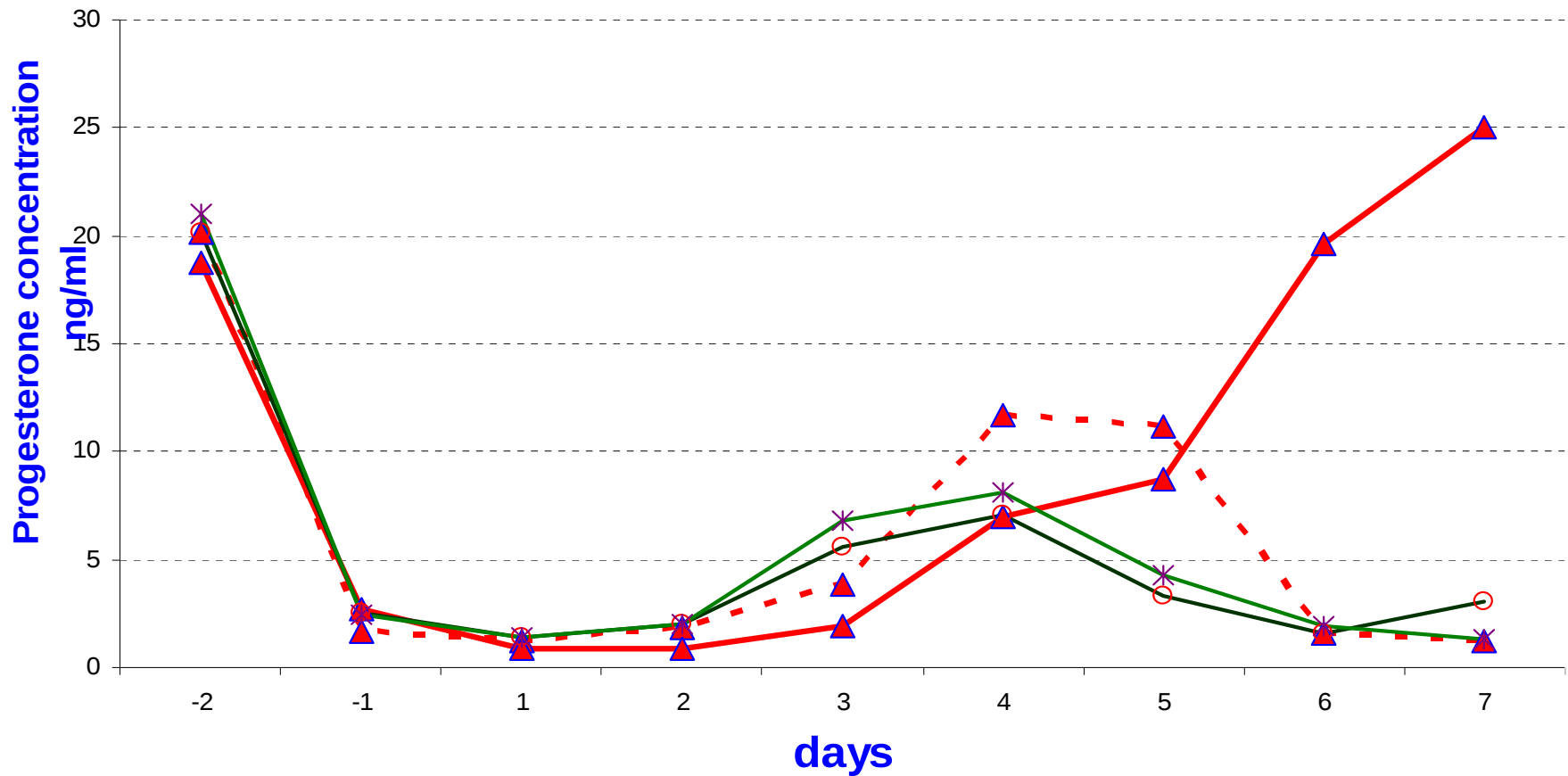
Premature CL regression %



Different letters signify significant differences among groups ($p < 0.01$)

Premature CL regression

Progesterone concentration

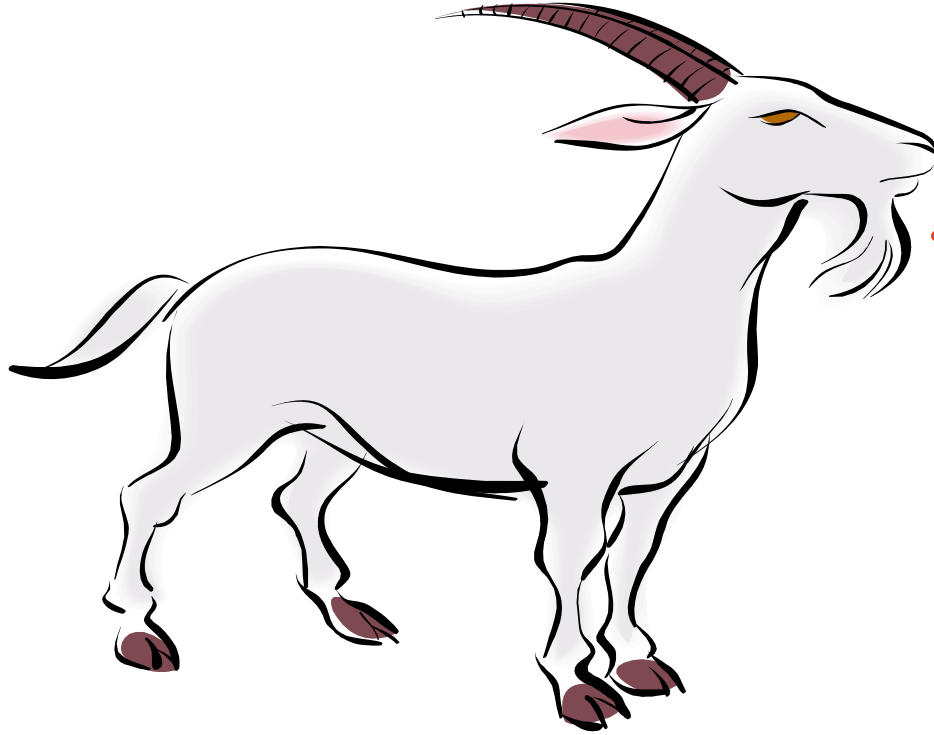


- ▲ - NaCl (regressed CL) - ▲ - NaCl (normal) - ○ - GnRH - * - hCG

Transferable Embryos

Treatment	Without ear implant		With ear implant	
	No. does	Transferable embryos	No. does	Transferable embryos
GnRH	6	0	11	3.2 (0-9)
hCG	6	1.0 (0-6)	11	2.0 (0-7)
Control	6	1.0 (0-5)	11	4.6 (3-11)

- ❑ Synchronisation of LH surge optimal with GnRH
- ❑ Premature luteal regression became evident by day 4 after ovulation
- ❑ Both GnRH and hCG treatment significantly increased the incidence of premature CL regression
- ❑ No significant differences between GnRH, hCG and NaCl with regard to number of transferable embryos
- ❑ Substitution of hCG for GnRH as ovulation inducing agent did not solve the problem



Thank you for
your attention

Thank you to:

J.F. Beckers	(Stimufol®)
Pharmacia	(Dinolitic®)
Intervet	(Buserelin®, Chorulon®, Crestar®)