Supplementary Files

Supplementary Table S1. Percentage distribution of body reaction category scores 0-4 (see Table 1) in the four treatments (CO = control group; LA = local anaesthetic; LT = intramuscular analgesic; LL = local anaesthetic plus intramuscular analgesic) on different sampling occasions (baseline, branding, and 5 days and 60 days after branding)

Treatment	Body reaction	Baseline score (%)					Score at branding (%)					Score at 5 days after branding (%)					Score at 60 days after branding (%)				
		0	1	2	3	4	0	1	2	3	4	0	1	2	3	4	0	1	2	3	4
CO	**Movement**	39.1	47.8	4.3	8.7	0.0	56.5	17.4	17.4	8.7	0.0	60.9	17.4	17.4	4.3	0.0	47.8	39.1	4.3	8.7	0.0
	Tail position/movement	4.3	34.8	47.8	8.7	4.3	0.0	8.7	21.7	52.2	17.4	13.0	65.2	17.4	0.0	4.3	0.0	52.2	34.8	13.0	0.0
	Hind legs movement	50.0	27.3	18.2	4.5	--	65.2	8.7	17.4	8.7	--	78.3	4.3	13.1	4.3	--	73.9	17.4	8.7	0.0	--
	Movement of back/spine	59.1	27.3	13.6	--	--	73.9	17.4	8.7	--	--	82.6	0.0	17.4	--	--	78.3	8.7	13.0	--	--
	Reaction at release	59.1	27.3	13.6	0,0	--	73,9	17.4	8.7	0.0	--	82.6	0.0	17.4	0.0	--	78.3	8.7	13.0	0.0	--
	Body response to branding*	--	--	--	--	--	47.8	21.7	30.4	--	--	--	--	--	--	--	--	--	--	--	--
LA	**Movement**	65.2	26.1	4.3	4.3	0.0	56.5	34.8	8.7	0.0	0.0	65.2	21.7	13.0	0.0	0.0	47.8	30.4	17.4	4.3	0.0
	Tail position/movement	4.3	60.9	30.4	4.3	0.0	0.0	13.0	17.4	43.5	26.1	4.3	56.5	26.1	13.0	0.0	0.0	60.9	34.8	4.3	0.0
	Hind legs movement	57.1	33.3	4.8	4.8	--	69.6	13.0	17.4	0.0	--	87.0	13.0	0.0	0.0	--	78.3	8.7	13.0	0.0	--
	Movement of back/spine	86.7	4.8	9.5	--	--	65.2	8.7	26.1	--	--	90.9	4.5	4.6	--	--	78.3	13.0	8.7	--	--
	Reaction at release	85.7	4.8	9.5	0.0	--	65.2	8.7	26.1	0.0	--	87.0	8.7	4.3	0.0	--	78.3	13.0	8.7	0.0	--
	Body response to branding*	--	--	--	--	--	39.1	43.5	17.4	--	--	--	--	--	--	--	--	--	--	--	--
LL	**Movement**	26.1	43.5	17.4	4.3	8.7	43.5	26.1	21.7	8.7	0.0	56.5	30.4	8.7	4.3	0.0	56.5	13.0	13.0	13.0	4.3
	Tail position/movement	0.0	30.4	60.9	4.3	4.3	0.0	17.4	17.4	52.2	13.0	4.3	56.5	39.1	0.0	0.0	0.0	52.2	43.5	4.3	0.0
	Hind legs movement	40.9	36.4	9.1	13.6	--	77.3	9.1	4.5	9.1	--	73.9	13.0	8.7	4.4	--	60.9	30.4	8.7	0.0	--
	Movement of back/spine	54.5	27.3	18.2	--	--	54.6	13.6	31.8	--	--	73.9	0.0	26.1	--	--	60.9	21.7	17.4	--	--
	Reaction at release	59.1	27.3	13.6	0.0	--	54.6	13.6	31.8	0.0	--	73.9	0.0	26.1	0.0	--	60.9	21.7	17.4	0.0	--
	Body response to branding*	--	--	--	--	--	31.8	31.8	36.4	--	--	--	--	--	--	--	--	--	--	--	--
LT	**Movement**	39.1	43.5	4.3	13.0	0.0	52.2	17.4	21.7	8.7	0.0	56.5	17.4	21.7	4.3	0.0	43.5	34.8	17.4	4.3	0.0
	Tail position/movement	8.7	39.1	47.8	4.3	0.0	0.0	17.4	21.7	39.1	21.7	0.0	47.8	43.5	8.7	0.0	0.0	47.8	43.5	4.3	4.3
	Hind legs movement	57.2	23.8	9.5	9.5	--	60.9	17.4	13.0	8.7	--	69.6	13.0	17.4	0.0	--	71.4	19.1	9.5	0.0	--
	Movement of back/spine	61.9	9.5	28.6	--	--	43.5	21.7	34.8	--	--	78.3	13.0	8.7	--	--	76.2	14.3	9.5	--	--
	Reaction at release	61.9	9.5	28.6	0.0	--	43.5	21.7	34.8	0.0	--	78.3	13.0	8.7	0.0	--	76.2	14.3	9.5	0.0	--

Body response to branding*	--	--	--	--	--	54.5	31.8	13.7	--	--	--	--	--	--	--	--	--	--	--	--

*Assessed only during branding.

Supplementary Table S2. Percentage distribution of facial expression category scores 0-2 (see Table 2) in the four treatments (CO = Control group; LA = local anaesthetic; LT = intramuscular analgesic; LL = local anaesthetic plus intramuscular analgesic) on different sampling occasions (baseline, branding, and 5 days and 60 days after branding)

		Baseline			**Score at branding**			**Score at 5 days after**			**Score at 60 days after**		
		score (%)			**(%)**			**branding (%)**			**branding (%)**		
Treatment	**Facial expression**	0	1	2	0	1	2	0	1	2	0	1	2
CO	**Head position**	13.1	21.7	65.2	30.5	21.7	47.8	26.1	26.1	47.8	17.4	34.8	47.8
	Escape reaction	13.1	65.2	21.7	30.4	52.2	17.4	26.1	60.9	13.0	17.4	69.6	13.0
	Eye white showing	8.7	91.3	--	21.7	78.3	--	21.7	78.3	--	0.0	100.0	--
	Tension above eye	0.0	56.5	43.5	8,7	60.9	30.4	4.4	39.1	56.5	13.0	65.2	21.8
	Eye tightness	43.5	17.4	39.1	26.1	34.8	39.1	34.8	34.8	30.4	82.6	8.7	8.7
	Third eyelid	39.1	60.9	--	47.8	52.2	--	43.5	56.5	--	56.5	43.5	--
	Tension masticatory muscles	0.0	56.5	43.5	8.7	60.9	30.4	4.3	39.1	56.5	13.0	65.2	21.7
	Tension of the muzzle	21.8	39.1	39.1	17.4	30.4	52.3	4.3	52.3	43.4	8.7	43.5	47.8
	Opening mouth	91.3	8.7	0.0	43.5	34.8	21.7	87.0	8.7	4.3	82.6	13.0	4.3
	Face response to branding*	--	--	--	47,6	0,0	52,4	--	--	--	--	--	--
LA	**Head position**	22.7	18.2	59.1	31.8	22.7	45.5	17.4	30.4	52.2	21.7	13.1	65.2
	Escape reaction	31.8	54.6	13.6	31.8	54.6	13.6	30.4	60.9	8.7	21.7	69.6	8.7
	Eye white showing	9.1	90.9	--	18.2	81.8	--	4.4	95.6	--	0.0	100.0	--
	Tension above eye	4.6	54.5	40,9	13.6	59.1	27.3	4.4	65.2	30.4	21.7	60.9	17.4
	Eye tightness	45.4	36.4	18.2	50,0	27.3	22.7	60.9	26.1	13.0	69.6	21.7	8.7
	Third eyelid	54.5	45.5	--	77.3	22.7	--	60,9	39.1	--	60.9	39.1	--
	Tension masticatory muscles	13.0	52.2	34.8	56.5	21.7	21.7	39.1	52.2	8.7	30.4	52.2	17.4
	Tension of the muzzle	4.5	54.6	40,9	31.8	36.4	31.8	4.4	56.5	39.1	0.0	39.1	60.9
	Opening mouth	81.8	18.2	0.0	68.2	13.6	18.2	95.7	4.3	0.0	87.0	4.3	8.7
	Face response to branding*	--	--	--	50,0	0,0	50,0	--	--	--	--	--	--

Supplementary Table S2 (contd.)

LL	**Head position**	4.6	22.7	73.7	26.1	21.7	52.2	17.4	21.7	60.9	8.7	13.0	78.3
	Escape reaction	4.5	68.2	27.3	34.8	47.8	17.4	26.1	47.8	26.1	21.7	52.2	26.1
	Eye white showing	9.1	90.0	--	17.4	82.6	--	17.4	82.6	--	8.7	91.3	--
	Tension above eye	4.5	40.9	54.6	4.3	60.9	34.8	8.7	47.8	43.5	8.7	78.3	13.0
	Eye tightness	54.6	13.6	31.8	34.8	39.1	26.1	47.8	21.7	30.5	69.6	30.4	0.0
	Third eyelid	68.2	31.8	--	56.5	43.5	--	73.9	26.1	--	65.2	34.8	--
	Tension masticatory muscles	26.1	39.1	34.8	39.1	21.7	39.1	43.5	17.4	39.1	30.4	34.8	34.8
	Tension of the muzzle	4.5	45.5	50,0	8.7	30.4	60.9	0.0	39.1	60.9	4.3	26.1	69.6
	Opening mouth	90.9	9.1	0.0	65.2	17.4	17.4	100.0	0.0	0.0	100.0	0.0	0.0
	Face response to branding*	--	--	--	38,1	0,0	61,9	--	--	--	--	--	--
LT	**Head position**	4.6	31.8	63.6	21.7	21.8	56.5	21.7	8.7	69.6	4.7	14.3	81.0
	Escape reaction	9,1	63,6	27.3	26.1	43.5	30.4	21.7	52.2	26.1	9,5	57.2	33.3
	Eye white showing	0.0	100,0	--	4.3	95.7	--	8.7	91.3	--	4.5	95.5	--
	Tension above eye	4.5	50.0	45.5	8.7	56.5	34.8	4.4	47.8	47.8	4.8	57.1	38.1
	Eye tightness	40.9	31.8	27.3	40.9	27.3	31.8	52.2	13.0	34.8	71.4	23.8	4.8
	Third eyelid	54.5	45.5	--	60.9	39.1	--	56.5	43.5	--	52.4	47.6	--
	Tension masticatory muscles	13.0	56.5	30.4	47.8	26.1	26.1	30.4	30.4	39.1	39.1	43.5	17.4
	Tension of the muzzle	9.1	31.8	59.1	21.7	21.8	56.5	13.0	34.8	52.2	4.8	23.8	71.4
	Opening mouth	90,9	9.1	0.0	78.3	4.3	17.4	95.7	4.3	0.0	85.7	9.5	4.8
	Face response to branding*	--	--	--	50.0	0.0	50.0	--	--	--	--	--	--

* Assessed only during branding.