

Supplemental Table 2: The time course of ACTH and Cortisol during the day of surgery.

ACTH										
	Control	SPI	PPI	NoL	Pairwise group comparison [P]					
					Ctrl vs SPI	Ctrl vs PPI	Ctrl vs NoL	SPI vs PPI	SPI vs NoL	PPI vs NoL
Baseline [ng·L ⁻¹]	23.3 (13.2, 40.6)	13.7 (7.6, 24.2)	21.0 (12.1, 35.8)	14.3 (8.1, 24.7)	0.187	0.787	0.215	0.280	0.913	0.321
End of surgery [ng·L ⁻¹]	80.9 (44.1, 147.8)	15.6 (8.4, 28.4)	321.1 (176.3, 584.2)	53.5 (30.1, 94.4)	<0.001	<0.001	0.274	<0.001	0.001	<0.001
After Extubation [ng·L ⁻¹]	286.6 (159.3, 515.0)	118.6 (68.8, 203.9)	347.2 (198.6, 606.5)	134.7 (76.8, 235.6)	0.02	0.617	0.045	0.005	0.730	0.012
End of PACU [ng·L ⁻¹]	91.6 (50.2, 166.4)	84.8 (48.4, 148.0)	65.8 (37.0, 116.2)	47.6 (26.0, 86.5)	0.838	0.392	0.085	0.502	0.123	0.398
Cortisol										
	Control	SPI	PPI	NoL	Pairwise group comparison [P]					
					Ctrl vs SPI	Ctrl vs PPI	Ctrl vs NoL	SPI vs PPI	SPI vs NoL	PPI vs NoL
Baseline [μg·L ⁻¹]	146.7 (97.4, 196.1)	106.3 (57.0, 155.5)	118.5 (71.3, 156.8)	106.9 (59.5, 154.4)	0.062	0.418	0.332	0.294	0.358	0.887
End of surgery [μg·L ⁻¹]	268.9 (214.8, 323.1)	146.4 (94.5, 198.4)	380.8 (326.9, 434.7)	250.5 (199.1, 300.9)	<0.001	0.002	0.581	<0.001	0.002	<0.001
After Extubation [μg·L ⁻¹]	303.1 (249.9, 356.2)	178.4 (129.1, 227.7)	383.3 (323.7, 433.9)	278.2 (227.6, 328.8)	<0.001	0.023	0.467	<0.001	0.003	0.002
End of PACU [μg·L ⁻¹]	337.6 (283.8, 391.3)	273.2 (22.8, 323.6)	309.2 (258.1, 360.3)	304.3 (251.1, 357.6)	0.062	0.418	0.332	0.294	0.358	0.887

Data presented are estimated marginal means (EMM) with 95% confidence intervals (95% CI), and P-values of the pairwise group comparisons (P) between the four treatment SPI, PPI, NoL and Ctrl. from the mixed-model analyses of hormone levels. Values were adjusted for random effects, ‘early or late’ surgery, and protein levels (adjusted to 64 g·L⁻¹ $\triangleq \log_2(\text{prot})=6$). ACTH levels were log-transformed for analysis and are shown back-transformed. Mixed model analysis indicated main effects of group (P <0.001), time (P <0.001) and the interaction of group and time (P <0.001).

Abbreviations: ACTH, adrenocorticotropic hormone; Ctr., control group; NoL, Nociception Level; PPI, Pupillary Pain Index, SPI, Surgical Pleth Index.