

**Supplementary Table 1.** Patients' peri-operative characteristics of the pooled dexamethasone and lidocaine groups.

	Pooled dexamethasone groups			Pooled lidocaine groups	
	No Dexa n = 16	Dexa 4 mg n = 16	Dexa 8 mg n = 16	Placebo n = 24	Lidocaine n = 24
Age (yr)	57 (12) [34–75]	58 (10) [43–75]	58 (10) [47–80]	57 (11) [34–75]	58 (10) [42–80]
BMI (kg m <sup>-2</sup> )	27 (5) [20–36]	24 (4) [19–33]	25 (4) [21–35]	25 (4) [20–35]	25 (5) [19–36]
ASA physical status (n)					
1	6	9	10	10	15
2	10	7	6	14	9
Tumour classification (n)					
Carcinoma In situ	4	3	2	5	4
T1	9	9	11	15	14
T2	3	4	3	4	6
Node classification (n)					
N0	15	13	12	19	21
N1	1	3	4	5	3
Surgery duration (min)	98 (39) [35-156]	84 (29) [24-133]	66 (21) [36-109]	83 (33) [39-152]	82 (33) [24-156]
Sufentanil (µg kg <sup>-1</sup> hr <sup>-1</sup> )	0.29 (0.12) [0.13 – 0.54]	0.28 (0.12) [0.12 – 0.60]	0.30 (0.12) [0.11 – 0.52]	0.31 (0.09) [0.17 – 0.45]	0.27 (0.14) [0.11 – 0.60]
NRS					
at t0	0.5 (0.9) [0 - 3]	0.5 (1.0) [0 - 4]	0.2 (0.8) [0 - 3]	0.4 (0.8) [0 - 3]	0.4 (1.0) [0 - 4]
at t1	1.6 (1.8) [0 - 5]	1.3 (1.6) [0 - 5]	0.9 (1.7) [0 - 6]	1.5 (1.9) [0 - 6]	1.0 (1.4) [0 - 4]
at t2	2.1 (1.9) [0 - 7]	2.0 (1.4) [0 - 6]	2.5 (1.0) [0 - 4]	2.3 (1.5) [0 - 7]	2.0 (1.4) [0 - 6]
Diclofenac (n)					
0 mg	1	1	1	2	1
75 mg	12	14	15	21	20
125 mg	3	1	0	1	3
Pirtramide (mg)	8.9 (5.8) [0-20]	8.6 (5.4) [0-20]	9.7 (3.9) [5-20]	9.3 (4.7) [0-20]	8.9 (5.4) [0-20]
Clonidine (n)					
0 µg	11	14	16	21	20
75 µg	3	2	0	2	3
150 µg	2	0	0	1	1
30-day complications (N)					
CDC I	4	9	3	10	6
CDC II	1	1	2	0	4
CDC IIIb	1	0	1	1	1

**Notes:** Data are mean (SD) [minimum - maximum], number of patients (n) or number of complications (N). At t0 = baseline, t1 = direct postoperative, and t2 = 4 hours after surgery.

**Abbreviations:** Dexa, dexamethasone; BMI, Body Mass Index; ASA, American Society of Anesthesiologists; T, tumor staging; NRS, Numeric Rating Scale; CDC, Clavien Dindo Classification.

**Supplementary Table S2:** Cytokine values at baseline and 4 hours postoperative.

	RCT 1: No dexamethasone		RCT 2: Dexamethasone 4 mg		RCT 3: Dexamethasone 8 mg	
	Placebo	Lidocaine	Placebo	Lidocaine	Placebo	Lidocaine
<b>t0</b>						
IL-6 (pg·mL <sup>-1</sup> )	2.28 [1.58 – 3.29]	2.10 [1.28 – 3.33]	2.66 [1.70 – 3.78]	2.01 [1.33 – 3.50]	1.76 [1.47 – 4.98]	1.92 [1.45 – 2.92]
IL-10 (pg·mL <sup>-1</sup> )	2.88 [2.62 – 3.24]	2.53 [2.30 – 2.83]	2.70 [2.51 – 2.81]	2.77 [2.05 – 3.26]	2.94 [2.22 – 4.76]	2.53 [2.24 – 2.73]
IL-6 to IL-10	0.77 [0.60 – 1.08]	0.73 [0.51 – 1.30]	0.94 [0.62 – 1.39]	0.77 [0.48 – 1.20]	0.74 [0.51 – 0.94]	0.80 [0.55 – 1.27]
IL-1β (pg·mL <sup>-1</sup> )	0.42 [0.33 – 0.56]	0.21 [0.14 – 0.45]	0.39 [0.32 – 0.70]	0.47 [0.36 – 0.56]	0.13 [0.11 – 0.20]	0.16 [0.10 – 0.21]
IL-1RA (pg·mL <sup>-1</sup> )	282 [199 – 543]	302 [190 – 362]	225 [210 – 295]	246 [185 – 311]	247 [175 – 265]	278 [192 – 370]
IL-1β to IL-1RA*	1.40 [0.88 – 2.03]	0.70 [0.60 – 2.50]	1.60 [1.25 – 3.10]	1.70 [1.43 – 2.68]	0.50 [0.43 – 0.78]	0.55 [0.43 – 0.85]
<b>t2</b>						
IL-6 (pg·mL <sup>-1</sup> )	23.57 [11.63 – 36.3]	11.48 [7.58 – 17.22]	9.63 [6.04 – 15.69]	14.61 [5.96 – 37.57]	4.52 [2.02 – 15.88]	6.77 [4.43 – 15.39]
IL-10 (pg·mL <sup>-1</sup> )	4.70 [2.52 – 5.90]	3.89 [2.70 – 4.85]	8.21 [6.02 – 10.47]	6.93 [4.81 – 11.10]	8.39 [6.67 – 11.74]	21.80 [10.55 – 28.05]
IL-6 to IL-10	5.47 [3.74 – 6.96]	3.00 [2.51 – 3.92]	1.32 [0.73 – 1.93]	2.26 [1.06 – 3.60]	0.63 [0.20 – 1.40]	0.68 [0.25 – 0.88]
IL-1β (pg·mL <sup>-1</sup> )	0.43 [0.26 – 1.98]	0.26 [0.19 – 0.49]	0.32 [0.26 – 0.49]	0.43 [0.26 – 0.48]	0.10 [0.06 – 0.13]	0.15 [0.08 – 0.88]
IL-1Ra (pg·mL <sup>-1</sup> )	565 [231 -1570]	429 [306 - 554]	205 [177 - 221]	266 [218 - 423]	250 [175 - 337]	461 [287 - 1453]
IL-1β to IL-1RA*	1.17 [0.68 – 2.07]	0.61 [0.38 – 1.09]	1.58 [1.22 – 2.36]	1.54 [0.62 – 2.16]	0.34 [0.15 – 0.71]	0.35 [0.20 – 0.52]

**Notes:** Data are median with interquartile range for each patient group (n=8 per group). At t0 = baseline, and t2 = 4 hours after surgery. \* Results for IL-1β/IL-1Ra are to be multiplied by 10<sup>-3</sup>.

**Abbreviations:** IL, Interleukin

**Supplementary Table S3:** Spearman's Rho correlation between postoperative pain score and cytokine values.

		NRS at t2	
		Rho (95% CI)	<i>P</i>
t0	IL-6	-0.041 (-0.329 – 0.254)	0.783
	IL-10	-0.114 (-0.393 – 0.184)	0.439
	IL-6 / IL-10	0.043 (-0.252 – 0.331)	0.771
	IL-1 $\beta$	-0.175 (-0.444 – 0.124)	0.235
	IL-1Ra	0.005 (-0.288 – 0.296)	0.975
	IL-1 $\beta$ / IL-1Ra	-0.170 (-0.440 – 0.128)	0.248
t2	IL-6	0.065 (-0.231 – 0.351)	0.658
	IL-10	0.260 (-0.038 – 0.515)	0.078
	IL-6 / IL-10	-0.120 (-0.400 – 0.182)	0.423
	IL-1 $\beta$	-0.041 (-0.329 – 0.254)	0.781
	IL-1Ra	0.023 (-0.271 – 0.313)	0.877
	IL-1 $\beta$ / IL-1Ra	-0.167 (-0.434 – 0.131)	0.257

**Notes:** At t0 = baseline, and t2 = 4 hours after surgery

**Abbreviations:** NRS, Numeric Rating Scale; IL, Interleukin