Corrigendum

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Corrigendum to "Chronic post-thoracotomy pain after lung cancer surgery: a prospective study of preoperative risk factors"

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Corrigendum to A. V. Danielsen, J. J. Andreasen, B. Dinesen, J. Hansen, K. K. Petersen, C. Simonsen, L. Arendt-Nielsen. "Chronic post-thoracotomy pain after lung cancer surgery: a prospective study of preoperative risk factors." Scand J Pain 2023 Jun 19;23(3):501–510. doi: 10.1515/sjpain-2023-0016. Regrettably, the authors have discovered a significant error regarding the calculation of Hospital Anxiety and Depression Scale (HADS) scores in this article [1]. The error originates from a coding issue in the database management system. The error affects the results presented and the conclusions drawn regarding associations between HADS and development of chronic post-thoracotomy pain (CPTP). After correction of the error, combined HADS is no longer significantly associated with CPTP in the primary analyses, reported in Table 1 and panel D in Figure 3. In secondary analyses, reported in Table 2, the risk estimates in model 4 change slightly and HADS remains non-significant in relation to CPTP risk. Corrected versions of Tables 1 and 2, and Figure 3 are provided below.

Also, in Discussion under the paragraph "Preoperative pain," the first sentence should read: "Preoperative pain at any location was present in 28% of patients, and was not associated with CPTP in the primary unadjusted analysis, but showed significance in the secondary adjusted risk analyses."

Competing interests: Lars Arendt-Nielsen is an Editor of Scandinavian Journal of Pain. The authors state no conflict of interest.

Reference

[1] Danielsen AV, Andreasen JJ, Dinesen B, Hansen J, Kjær-Staal Petersen K, Simonsen C, et al. Chronic post-thoracotomy pain after lung cancer surgery: a prospective study of preoperative risk factors. Scand J Pain. 2023 Jul;23(3):501–10. doi: 10.1515/sjpain-2023-0016.

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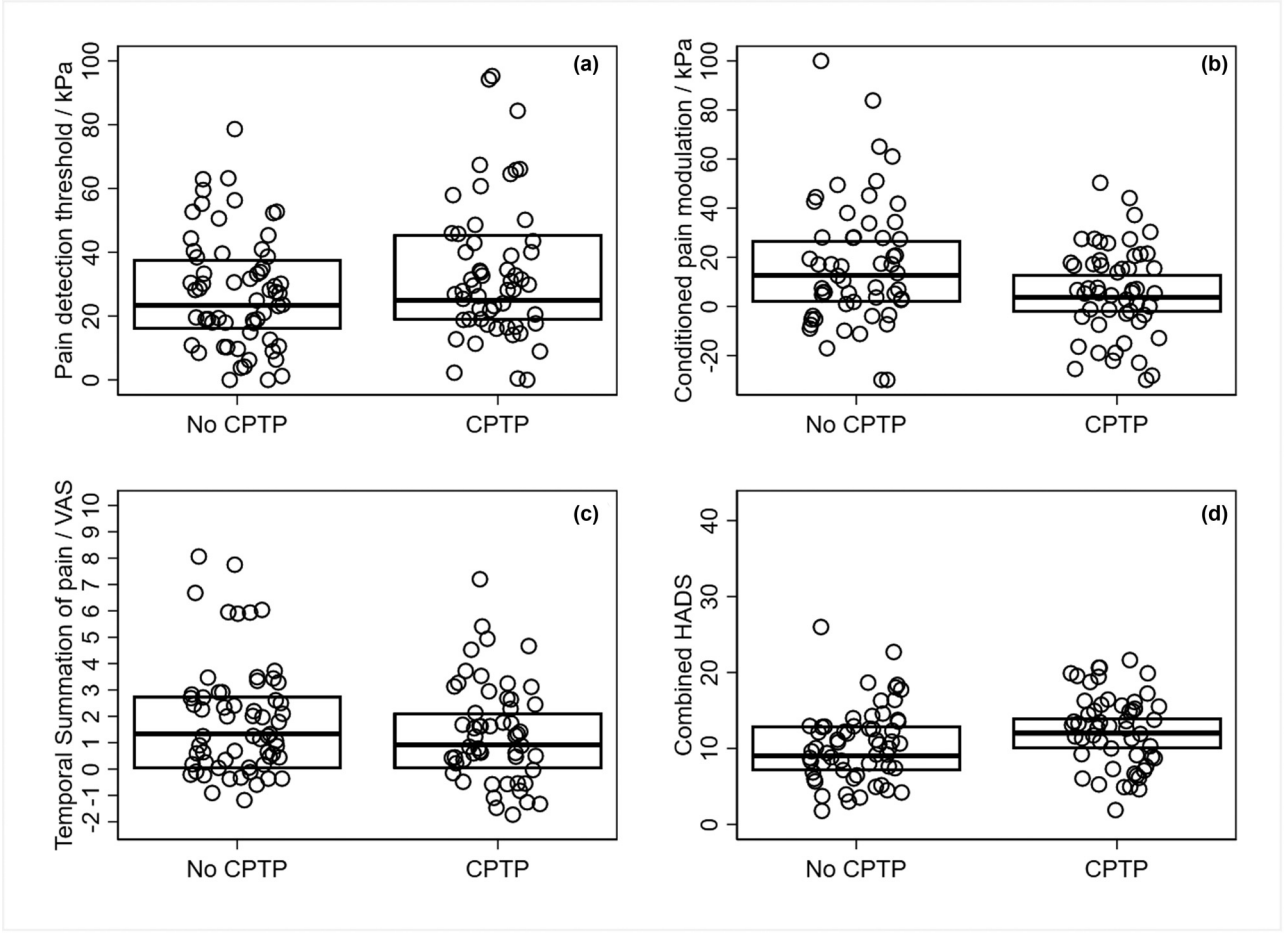

Figure 3: Box plots of data distributions and CPTP status 6 months after surgery. Boxes represent upper and lower IQR, line in box indicates median and dots represent individual observations. (a) Pressure pain detection threshold (PDT), (b) conditioned pain modulation (CPM), (c) temporal summation of pain (TSP) and (d) combined HADS.

Table 1: Clinical variables and preoperative assessment in relation to CPTP after 6 months

	Pain status after 6 months			
	No CPTP	**CPTP**	***p*-value**	**Adjusted *p*-value**
Age (years), mean (95% CI)	69.6 (67.3–71.8)	64.8 (61.9–67.6)	0.009	0.096
Sex, *n* (%)			0.574	1.000
Female	35 (53.9)	33 (41.1)		
Male	30 (53.9)	23 (58.9)		
Body mass index (kg/m^2)	26.1 (24.9–27.2)	26.4 (25.3–27.8)	0.687	1.000
Preoperative QST				
Cuff PDT[a] (kPa), mean (95% CI))	27.2 (23.1–31.3)	32.5 (26.9–38.2)	0.122	0.854
Cuff PTT (kPa), mean (95% CI)	53.7 (47.6–59.9)	56.1 (48.9–63.3)	0.620	1.000
Cuff CPM[b] (kPa), mean (95% CI)	15 (9.2–21.7)	2.1 (1.0–9.6)	0.009	0.096
Cuff TSP[c] (VAS), mean (95% CI)	1.8 (1.3–2.3)	1.3 (0.8–1.8)	0.137	0.854
Preoperative HADS, mean (95% CI)				
Combined score[d]	10.2 (9.1–11.3)	12.0 (11.1–12.9)	0.014	0.126
Depression score[e]	4.9 (4.4–5.5)	5.5 (4.9–6.0)	0.008	0.096
Anxiety score[f]	5.2 (4.5–5.9)	6.5 (5.8–7.1)	0.008	0.096
Preoperative pain[g] (yes), *n* (%)	11 (19.3)	17 (40.5)	0.029	0.232
Preoperative NPSI[h] median (IQR)	0 (0–0)	0.5 (0–5.3)	0.001	0.014
Maximum acute pain[i] (NRS) median (IQR)	3 (0–5)	5 (3–7)	0.003	0.039
Surgery[j], *n* (%)			0.534	1.000
VATS				
Wedge resection	23 (35.3)	13 (23.6)		
Lobectomy	21 (32.3)	18 (32.7)		
Other	0 (0.0)	2 (3.6)		
Thoracotomy				
Wedge resection	3 (4.6)	2 (3.6)		
Lobectomy	14 (21.5)	16 (29.1)		
Pneumonectomy	3 (4.6)	2 (3.6)		
Other	1 (1.5)	2 (3.6)		
Histology, *n* (%)			0.749	1.000
Primary lung cancer	44 (68.8)	40 (71.4)		
Benign	20 (31.2)	16 (28.6)		

N = 99–121 due to missing data. Missing data (*n*) are indicated for each analysis: [a]22, [b]14, [c]5, [d]10, [e]8, [f]8, [g]22, [h]15, [i]22, [j]1.

QST, quantitative sensory testing; PDT, pain detection threshold; PTT, pain tolerance threshold; CPM, conditioned pain modulation; TSP, temporal summation of pain; VAS, visual analog scale; HADS, hospital anxiety and depression scale; NPSI, Neuropathic pain symptom inventory; POD, postoperative day; VATS, video-assisted thoracoscopic surgery.

Table 2: Multivariable analyses of CPTP risk predictors as RR with 95% CI

	RR	95% CI	*p*-value
Model 1 (*n* = 75)			
PDT (per kPa)	1.00	0.99–1.02	0.509
Preoperative pain (yes)	1.84	1.13–2.98	0.013
Age (per year)	1.00	0.97–1.03	0.917
Sex (female)	1.44	0.82–2.53	0.195
Surgical approach (open vs VATS)	0.90	0.52–1.52	0.682
Maximum acute pain (per NRS-point)	1.12	1.02–1.26	0.025
Model 2 (*n* = 68)			
CPM (per kPa)	0.98	0.97–0.99	0.003
Preoperative pain (yes)	1.69	1.02–2.80	0.043
Age (per year)	0.99	0.97 –1.02	0.666
Sex (female)	1.44	0.82–2.53	0.195
Surgical approach (open vs VATS)	0.90	0.52–1.52	0.682
Maximum acute pain (per NRS point)	1.12	1.02–1.26	0.025
Model 3 (*n* = 76)			
TSP (per VAS point)	1.00	0.88–1.16	0.892
Preoperative pain (yes)	1.87	1.10–3.18	0.022
Age (per year)	1.00	0.97–1.03	0.885
Sex (female)	1.44	0.82–2.51	0.204
Surgical approach (open vs VATS)	0.85	0.49–1.46	0.550
Maximum acute pain (per NRS point)	1.14	1.03–1.27	0.012
Model 4 (*n* = 76)			
HADS (per point)	1.06	0.99–1.12	0.073
Preoperative pain (yes)	2.20	1.31–3.68	0.003
Age (per year)	1.00	0.97–1.03	0.836
Sex (female)	1.20	0.69–2.09	0.526
Surgical approach (open vs VATS)	0.66	0.37–1.16	0.147
Maximum acute pain (per NRS point)	1.16	1.04–1.29	0.006

Models for each preoperative variable investigated in the study: Pain detection threshold (PDT), conditioned pain modulation (CPM), temporal summation of pain (TSP) and Hospital Anxiety and Depression Scale (HADS). Numbers of patients with complete data included in models are denoted by *n*. Preoperative pain is pain from any location of any intensity prior to surgery. Surgical approach is by either open anterior muscle sparing thoracotomy or minimally invasive video-assisted thoracoscopic surgery (VATS). Maximum acute pain is highest reported postoperative NRS on the day of surgery.