



ELECTRONIC SUPPLEMENTARY MATERIAL

Flick M *et al.*: The effect of major abdominal surgery on the sublingual microcirculation: an observational study

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eTable 1 Differences between time points for sublingual microcirculation variables

	At incision - before induction	Intraoperative average - at incision	Lowest intraoperative - at incision	Lowest intraoperative - before induction	Intraoperative average - first postoperative day	Before induction - first postoperative day
PPV (%)	-4.4 (-5.3 to -3.4) <i>P</i> < 0.001	-0.4 (-1.2 to 0.4) <i>P</i> = 0.316	-5.3 (-6.3 to -4.4) <i>P</i> < 0.001	-9.8 (-11.0 to -8.5) <i>P</i> < 0.001	4.6 (3.8 to 5.4) <i>P</i> < 0.001	-0.2 (-0.8 to 0.4) <i>P</i> = 0.544
TVD (mm·mm ⁻²)	4.6 (3.6 to 5.6) <i>P</i> < 0.001	0.1 (-0.7 to 0.9) <i>P</i> = 0.772	-3.5 (-4.5 to -2.6) <i>P</i> < 0.001	-1.0 (-2.2. to 0.1) <i>P</i> = 0.072	-5.0 (-6.2 to -3.8) <i>P</i> < 0.001	-0.3 (-1.6 to 1.0) <i>P</i> = 0.628
RBCv (μm·s ⁻¹)	-51 (-69 to -34) <i>P</i> < 0.001	3 (-5.9 to 11) <i>P</i> = 0.524	-35 (-43 to -26) <i>P</i> < 0.001	-87 (-104 to -70) <i>P</i> < 0.001	55 (41 to 69) <i>P</i> < 0.001	3 (-15 to 22) <i>P</i> = 0.704
tRBCp (μm·min ⁻¹)	6.0 (2.5 to 9.5) <i>P</i> = 0.001	2.8 (0.3 to 5.3) <i>P</i> = 0.032	-8.3 (-11.2 to -5.4) <i>P</i> < 0.001	-2.4 (-6.1 to 1.3) <i>P</i> = 0.203	-9.1 (-13.0 to -5.2) <i>P</i> < 0.001	-0.7 (-4.5 to 3.1) <i>P</i> = 0.725

Data are presented as mean differences with corresponding 95% confidence intervals and *P* values based on two-sided two-sample *t* tests

PPV = proportion of perfused vessels; RBCv = red blood cell velocity; tRBCp = tissue red blood cell perfusion; TVD = total vessel density

eTable 2 Glycocalyx markers

	At incision	End of surgery	First postoperative day
syndecan-1 (ng·dl ⁻¹)	56 (60)	95 (82)	114 (84)
Hyaluronan (ng·dl ⁻¹)	192 (147)	183 (134)	253 (181)

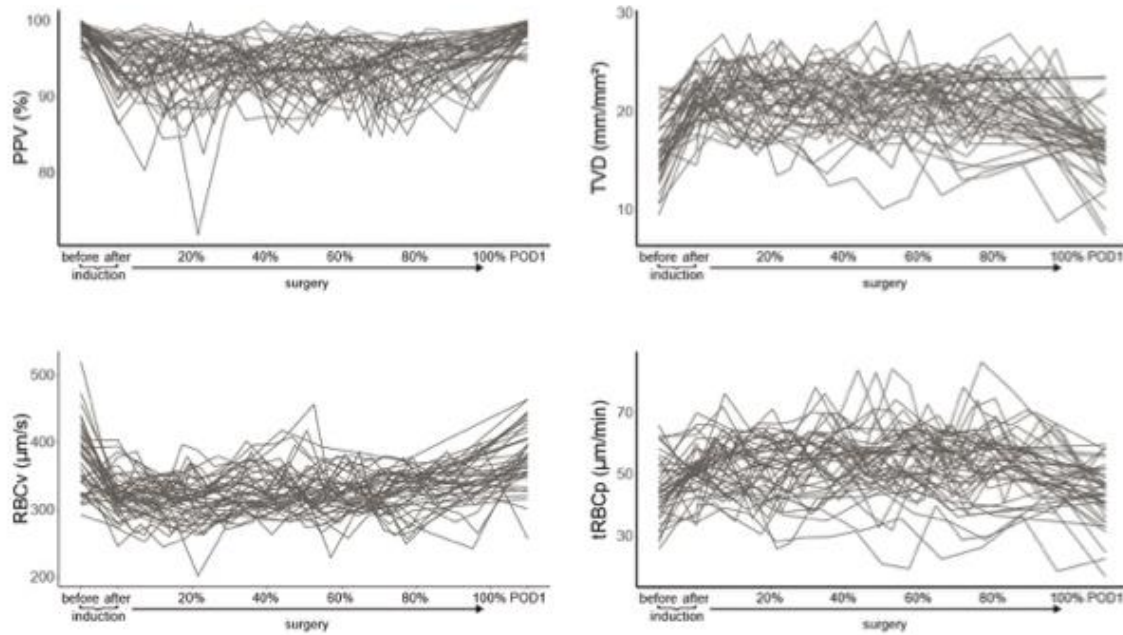
Data are presented as mean (standard deviation)

eTable 3 Postoperative complications

Any complication	23/46 (50%)
Acute kidney injury	8/46 (17%)
Anastomotic leakage	5/46 (11%)
Infection	13/46 (28%)
Myocardial injury	6/46 (13%)
Thromboembolic events	3/46 (7%)
Length of hospital stay (days)	10 [8–17]

Data are presented as *n*/total *N* (%) or median [interquartile range]

eFigure Perioperative sublingual microcirculation



Spaghetti plots for individual patients (grey) with overlaying box plots (black) showing perioperative sublingual microcirculation variables relative to the individual duration of surgery

PPV = proportion of perfused vessels; POD1 = first postoperative day; RBCv = red blood cell velocity; tRBCp = tissue red blood cell perfusion; TVD = total vessel density