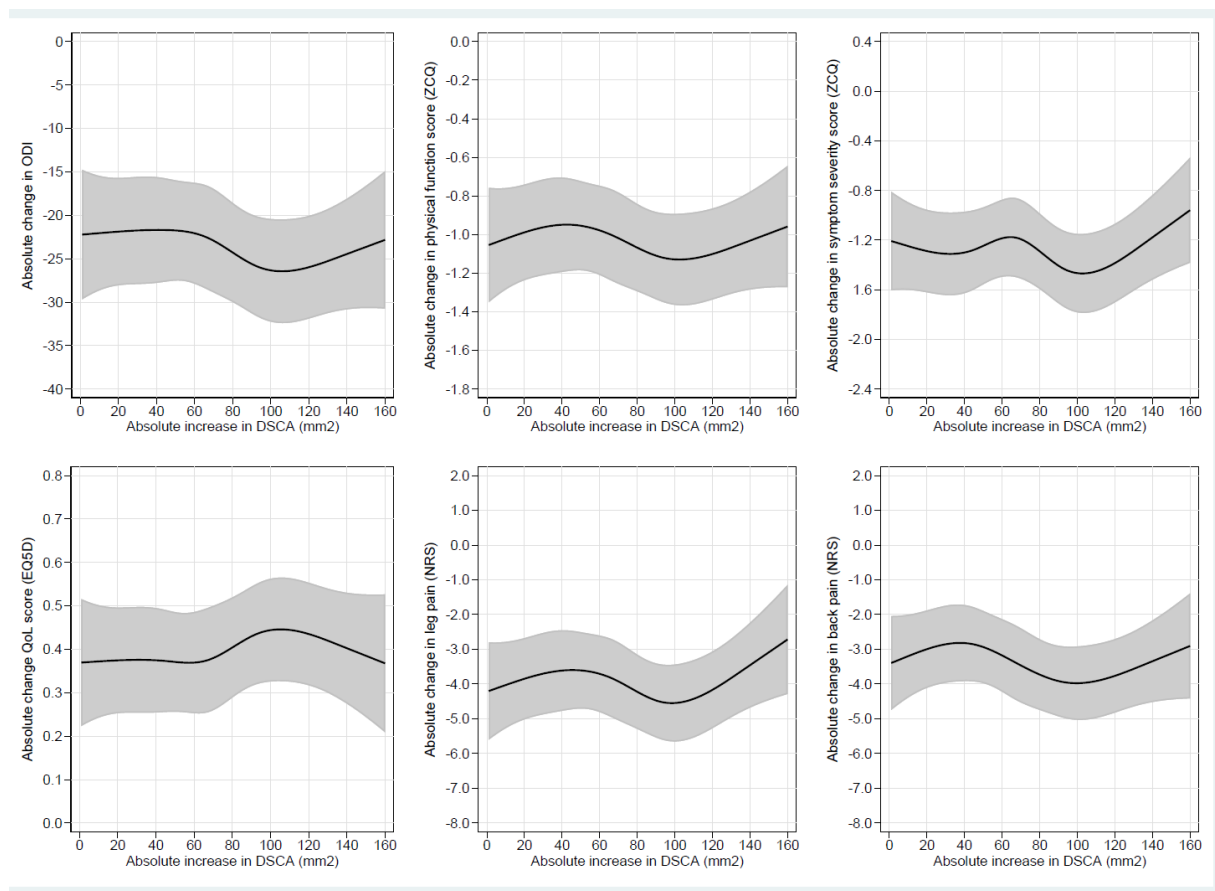


Supplemental Digital Content.

Supplemental Figure 1: **Absolute increase in DSCA measured mm².**

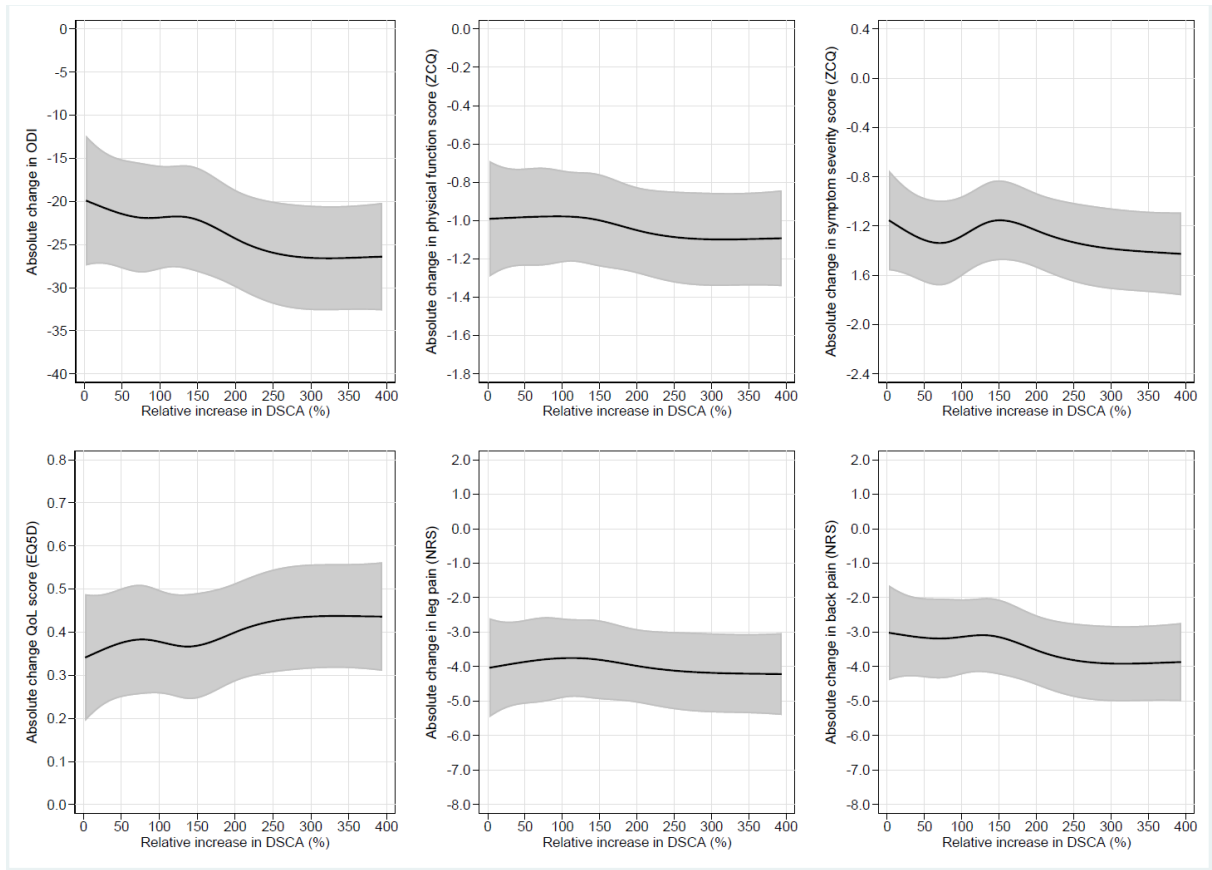
Association between Dural Sac Cross-sectional Area (DSCA) and patient reported outcome measures in LSS patients operated with decompressive surgery. Absolute change in outcomes as a function of absolute increase in DSCA, measured as change in DSCA (measured in mm²) from baseline to 3 months postoperatively. Estimates are generated on the basis of a multivariable regression model using restricted cubic splines to model non-linear effects of change in DSCA and change in outcome is predicted at the mean of other covariates. No association between absolute change of DSCA and clinical improvement was found. No minimal threshold value for a minimal increase of DSCA was detected.



ODI: Oswestry Disability Index. ZCS: Zurich Claudication Scale. EQ-5D: EuroQol Questionnaires. NRS: Numeric Rating Scale. DSCA: Dural Sac Cross-sectional Area.

Supplemental Figure 2. Relative increase in DSCA.

Association between Dural Sac Cross-sectional Area (DSCA) and patient reported outcome measures in LSS patients operated with decompressive surgery. Absolute change in outcomes as a function of relative increase in DSCA, measured as percentage change in DSCA from baseline to 3 months postoperatively. Estimates are generated on the basis of a multivariable regression model using restricted cubic splines to model non-linear effects of change in DSCA and change in outcome is predicted at the mean of other covariates. No association between relative change of DSCA and clinical improvement was found. No minimal threshold value for a relative increase of DSCA was detected.



ODI: Oswestry Disability Index. ZCS: Zurich Claudication Scale. EQ-5D: EuroQol Questionnaires. NRS: Numeric Rating Scale. DSCA: Dural Sac Cross-sectional Area.

Supplemental Table 1: **Absolute increase in DSCA measured mm².**

Patient reported outcome measures related to absolute increase (measured in mm²) in dural sac cross section area (DSCA) for LSS patients operated with decompressive surgery. The cohort was divided into quintiles. Change of the different outcome parameters for each quintile of absolute increase in DSCA, measured as change in DSCA (mm²) from baseline to 3 months postoperatively.

Unadjusted means:							
	Absolute change in DSCA, range (mm ²)	Change ODI	Change physical function (ZCQ)	Change symptoms (ZCQ)	Change QoL (EQ5D)	Leg pain (NRS)	Back pain (NRS)
Quintile 1	100-208	-20.8 (-24.3, -17.3)	-0.9 (-1.0, -0.7)	-1.0 (-1.2, -0.8)	0.3 (0.3, 0.4)	-3.4 (-4.1, -2.7)	-2.7 (-3.4, -2.1)
Quintile 2	77-99	-22.5 (-25.9, -19.1)	-0.9 (-1.1, -0.8)	-1.2 (-1.4, -1.1)	0.4 (0.3, 0.4)	-4.1 (-4.7, -3.5)	-3.4 (-4.0, -2.8)
Quintile 3	60-76	-17.0 (-20.5, -13.6)	-0.8 (-1.0, -0.7)	-0.9 (-1.1, -0.7)	0.3 (0.2, 0.4)	-3.3 (-4.0, -2.7)	-2.5 (-3.2, -1.9)
Quintile 4	34-59	-18.3 (-21.6, -14.9)	-0.7 (-0.9, -0.6)	-0.9 (-1.1, -0.7)	0.3 (0.2, 0.4)	-3.0 (-3.6, -2.4)	-2.1 (-2.7, -1.5)
Quintile 5	26-33	-18.4 (-21.9, -14.9)	-0.9 (-1.0, -0.7)	-1.1 (-1.3, -0.9)	0.3 (0.2, 0.4)	-3.7 (-4.3, -3.0)	-2.5 (-3.1, -1.9)

ODI: Oswestry Disability Index. ZCS: Zurich Claudication Scale. EQ-5D: EuroQol Questionnaires. NRS: Numeric Rating Scale. DSCA: Dural Sac Cross-sectional Area.

Supplemental Table 2: **Relative increase in DSCA.**

Patient reported outcome measures related to relative increase (%-increase) in postoperative dural sac cross section area (DSCA) for LSS patients operated with decompressive surgery. The cohort was divided into quintiles. Change of the different outcome parameters for each quintile of relative increase in DSCA, measured as percentage change in DSCA from baseline to 3 months postoperatively.

Unadjusted means:						
Relative change in DSCA, range (%)	Change ODI	Change physical function (ZCQ)	Change symptoms (ZCQ)	Change QoL (EQ5D)	Leg pain (NRS)	Back pain (NRS)
242-802	-22.1 (-25.9, -18.3)	-0.9 (-1.1, -0.8)	-1.1 (-1.3, -0.9)	0.3 (0.3, 0.4)	-3.7 (-4.4, -2.9)	-2.9 (-3.6, -2.2)
165-241	-20.4 (-23.9, -16.9)	-0.9 (-1.0, -0.7)	-1.0 (-1.2, -0.8)	0.3 (0.3, 0.4)	-3.6 (-4.3, -3.0)	-2.9 (-3.5, -2.2)
116-164	-19.6 (-23.1, -16.2)	-0.8 (-1.0, -0.7)	-0.9 (-1.1, -0.8)	0.3 (0.2, 0.4)	-3.4 (-4.1, -2.8)	-2.6 (-3.2, -2.0)
62-115	-17.6 (-21.1, -14.1)	-0.8 (-0.9, -0.6)	-1.0 (-1.2, -0.8)	0.3 (0.3, 0.4)	-3.2 (-3.9, -2.6)	-2.5 (-3.1, -1.9)
-32-61	-17.3 (-21.0, -13.6)	-0.8 (-1.0, -0.7)	-1.0 (-1.2, -0.8)	0.3 (0.2, 0.4)	-3.6 (-4.2, -2.9)	-2.3 (-3.0, -1.7)

ODI: Oswestry Disability Index. ZCS: Zurich Claudication Scale. EQ-5D: EuroQol Questionnaires. NRS: Numeric Rating Scale. DSCA: Dural Sac Cross-sectional Area.

Supplemental figure 3: Flow chart of the NORDSTEN and the SST according to the CONSORT-statement. PROM: Patient Reported Outcomes Measures. CRF: Case Report Form *More than one exclusion criteria were noted.

