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**Original Article**

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# **S100A8/A9 (Calprotectin), Interleukin-6, and C-Reactive Protein in Obesity and Diabetes before and after Roux-en-Y Gastric Bypass Surgery**

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## **Supplemental Material**

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**Supplementary table 1.** Median levels and relative decreases of BMI, HOMA-IR and diabetes and inflammatory variables of all participants

	Pre		Post		Relative decrease
	N	Median (95%CI)	n	Median (95%CI)	Median (95%CI)
BMI ( kg/m <sup>2</sup> )	48	42.3 (40.8;44.5)	48	30.5 (29.4;31.7)	0.26 (0.24;0.29)
HbA1C (mmol/mol)	47	42 (40;48)	48	36 (34;38)	0.18 (0.14;0.22)
Glucose (mmol/L)	45	5.9 (5.6;6.4)	47	5.2 (5.1;5.5)	0.12 (0.09;0.15)
C-peptide (pmol/L)	48	1031 (811;1278)	48	583 (523;715)	0.42 (0.36;0.48)
Insulin (pmol/L)	41	122 (110;163)	45	43.4 (34.3;53.0)	0.65 (0.57;0.72)
HOMA-IR	39	5.11 (3.76;6.46)	44	1.63 (1.29;2.01)	0.69 (0.59;0.76)
S100A8/A9 (µg/L)	47	960 (765;1137)	47	547 (424;623)	0.39 (0.25;0.50)
IL-6 (ng/L)	44	2.4 (2.1;2.9)	42	1.6 (1.3;2.3)	0.34 (0.19;0.43)
CRP (mg/L)	47	5.0 (3.0;7.0)	48	1.0 (1.0;1.0)	0.71 (0.70;0.83)
Leukocyte count ( x 10 <sup>9</sup> /L)	48	6.3 (5.8;7.0)	48	6.0 (5.5;6.3)	0.08 (0.04;0.15)

The relative decreases were calculated as ((Pre-surgical value-Post-surgical value)/Pre-surgical value)). As S100A8/A9- and CRP-values were truncated at values of 400 µg/L and 0.3 mg/L, respectively, the decreases of these variables are minimum decreases.

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**Supplementary table 2.** Median relative decreases of BMI, HOMA-IR and diabetes and inflammatory variables within the single groups

Median (95%CI) relative decreases, pre- to post-surgically						
Group	T2DM+/+		T2DM+/-		T2DM-/-	
	n		n		N	
BMI ( kg/m <sup>2</sup> )	10	0.25(0.21;0.34)	19	0.27 (0.24;0.31)	19	0.28 (0.20;0.33)
HbA1C (mmol/mol)	9	0.24 (0.06;0.42)	19	0.21 (0.17;0.36)	19	0.14(0.03;0.17)
Glucose (mmol/L)	9	0.33 (-0.08;0.56)	16	0.13(-0.04;0.24)	19	0.10 (0;0.15)
C-peptide (pmol/L)	10	0.37(-0.01;0.51)	19	0.45 (0.37;0.53)	19	0.41(0.24;0.57)
Insulin (pmol/L)	4	0.62 (0.39;0.75)	18	0.64 (0.56;0.73)	17	0.64 (0.40;0.74)
HOMA-IR	4	0.73(0.46;0.89)	15	0.70 (0.57;0.80)	17	0.68 (0.46;0.78)
S100A8/A9 (µg/L)	10	0.47 (0.00; 0.68)	19	0.38 (0.25; 0.53)	18	0.37 (0.03;0.53)
IL-6 (ng/L)	8	0.32 (-0.28; 0.74)	16	0.28 (0.17;0.43)	17	0.40 (0.17;0.47)
CRP (mg/L)	9	0.70 (0.38; 0.97)	19	0.70 (0.78; 0.86)	19	0.70 (0.40;0.83)
Leukocyte count (x10 <sup>9</sup> /L)	10	0.17 (-0.15;0.36)	19	0.09 (0.02; 0.18)	19	0.06 (-0.02;0.22)

The relative decreases were calculated as ((Pre-surgical value-Post-surgical value)/Pre-surgical value)).

As S100A8/A9- and CRP-values were truncated at values of 400 µg/L and 0.3 mg/L, respectively, the decreases of these variables are minimum decreases.

Significance levels of differences between the three groups are indicated by \*  $p \leq 0.05$ , \*\*  $p \leq 0.01$ , \*\*\* $p \leq 0.001$  and \*\*\*\* $p \leq 0.0001$  and ns = no significance

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**Supplementary table 3.** Spearman Rank correlation coefficients of the relative decrease of IL-6 to those of BMI, HOMA-IR and diabetes and inflammatory variables

	T2DM+/+		T2DM+/-		T2DM-/-	
	n	r (p-value)	n	r (p-value)	n	r (p-value)
BMI	8	0.072 (0.871)	16	0.437 (0.092)	17	-0.003 (0.991)
HbA1C	8	0.643 (0.096)	16	0.039 (0.885)	17	-0.232 (0.368)
Glucose	8	0.071 (0.882)	13	-0.039 (0.902)	17	-0.313 (0.220)
C-peptide	8	-0.240 (0.565)	16	-0.172 (0.521)	17	-0.130 (0.617)
Insulin	4	nd	15	-0.076 (0.788)	15	-0.159 (0.569)
HOMA-IR	4	nd	12	-0.168 (0.604)	15	-0.197 (0.477)
CRP	7	0.342(0.459)	16	0.207 (0.439)	17	0.224 (0.384)
Leukocyte count	8	0.571 (0.151)	16	0.353 (0.178)	17	0.319 (0.211)

Spearman rank correlations coefficients r (p-value) of the relative decreases of IL-6 to those of BMI, HOMA-IR and diabetes and inflammatory variables. Due to the sample sizes the correlations to insulin and HOMA-IR in T2DM+/+ were not done (nd).