

# ***The interplay of adipokines, body composition and glucose homeostasis in pregnant women with a history of RYGB operation***

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## ***Supplementary materials***

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Table S1: Differences between adipokines during pregnancy

	RYGB (N=25)	obesity (N=19)	NW (N=19)	p-value	Adj. p value
Leptin [ng/ml]					
n	21	18	19	< 0.001 <sup>1</sup>	< 0.001 <sup>1</sup>
Mean (SD)	17.74 (10.08) <sup>b</sup>	31.28 (8.86) <sup>b f</sup>	19.14 (5.90) <sup>f</sup>		
Adiponectin [μg/ml]					
n	21	18	19	< 0.001 <sup>2</sup>	< 0.001 <sup>2</sup>
Mean (range)	9.33 (3.85 – 20.42) <sup>b</sup>	4.27 (1.87 – 8.30) <sup>b f</sup>	8.71 (4.78 – 17.62) <sup>f</sup>		
AFABP [ng/ml]					
n	21	18	19	< 0.001 <sup>2</sup>	< 0.001 <sup>2</sup>
Mean (range)	11,19 <sup>b c</sup> (6,43 - 24,55)	28,91 <sup>b f</sup> (15,96 - 46,56)	14,13 <sup>c f</sup> (6,61 - 25,29)		
FGF21 [pg/ml]					
n	21	18	17	0.27 <sup>2</sup>	0.27 <sup>2</sup>
Mean (range)	4.88 (1.35)	5.28 (1.05)	4.62 (1.15)		
Afamin [μg/ml]					
n	21	18	19	0.03 <sup>2</sup>	0.20 <sup>2</sup>
Mean (range)	77.98 (60.53 - 112.72) <sup>c</sup>	90.16 (75.16 - 110.66)	88.72 (63.39 - 138.04) <sup>c</sup>		
Secretagogin [pg/ml]					
n	21	15	19	0.42 <sup>2</sup>	1 <sup>2</sup>
Mean (range)	162.55 (25.88 - 4265.8)	234.42 (33.42 - 1172.2)	267.3 (12.91 - 1458.81)		

Table S 1: Comparison of adipokines between pregnant women with a history of RYGB, women with obesity and normal-weight controls. RYGB = Roux-En-Y gastric bypass, NW = normal weight, AFABP = adipocyte fatty acid binding protein, FGF21 = fibroblast growth factor 21, a = p-value < 0.05 between RYGB and women with obesity, b = p-value < 0.01 between RYGB and women with obesity, c = p-value < 0.05 between RYGB and normal-weight women, d = p-value < 0.01 between RYGB and normal-weight women; e = p-value < 0.05 between women with obesity and normal-weight women, f = p-value < 0.01 between women with obesity and normal-weight women, 1 = ANOVA, 2 = ANOVA (after log10 transformation)

Figure S1: Violin-dot-plot for the comparisons in Figure 1 / Table S1

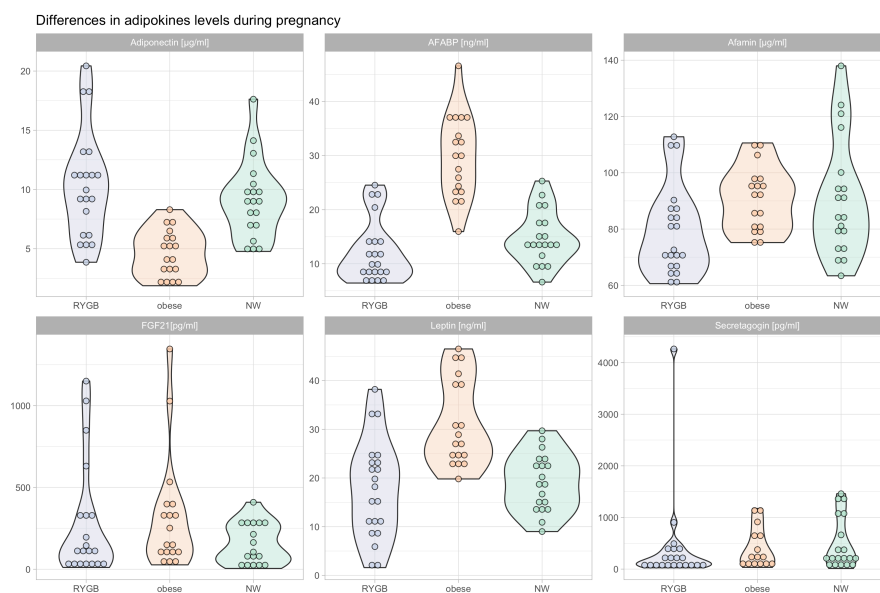


Figure S 1: Violin-dot-plot for the adipokines and group comparisons of Figure 1 and Table S1

Table S2: Differences between adipokines postpartum

	RYGB (N=25)	obesity (N=19)	NW (N=19)	p value	Adj. p value
Leptin [ng/ml]					
n	12	9	14	< 0.001 <sup>1</sup>	< 0.01 <sup>1</sup>
Mean (SD)	15.32 (10.11) <sup>b</sup>	32.52 (10.57) <sup>b f</sup>	14.36 (8.59) <sup>f</sup>		
AFABP [ng/ml]					
n	13	9	14	0.014 <sup>2</sup>	0.24 <sup>2</sup>
Mean (SD)	2.76 (0.54) <sup>a c</sup>	3.38 (0.36) <sup>a</sup>	3.15 (0.47) <sup>c</sup>		
FGF21 [pg/ml]					
n	13	9	5	0.589 <sup>2</sup>	1 <sup>2</sup>
Mean (SD)	5.06 (1.60)	4.69 (0.99)	5.20 (0.65)		

Table S 2: Comparison of adipokines between post-partum women with a history of RYGB, women with obesity and normal-weight controls. RYGB = Roux-En-Y gastric bypass, NW = normal weight, AFABP = adipocyte fatty acid binding protein, FGF21 = fibroblast growth factor 21, a = p-value < 0.05 between RYGB and women with obesity, b = p-value < 0.01 between RYGB and women with obesity, c = p-value < 0.05 between RYGB and normal-weight women, d = p-value < 0.01 between RYGB and normal-weight women; e = p-value < 0.05 between women with obesity and normal-weight women, f = p-value < 0.01 between women with obesity and normal-weight women, 1 = ANOVA, 2 = ANOVA (after log10 correction)

Figure S2: Violin-dot-plot for the comparisons in Figure 2 / Table S2

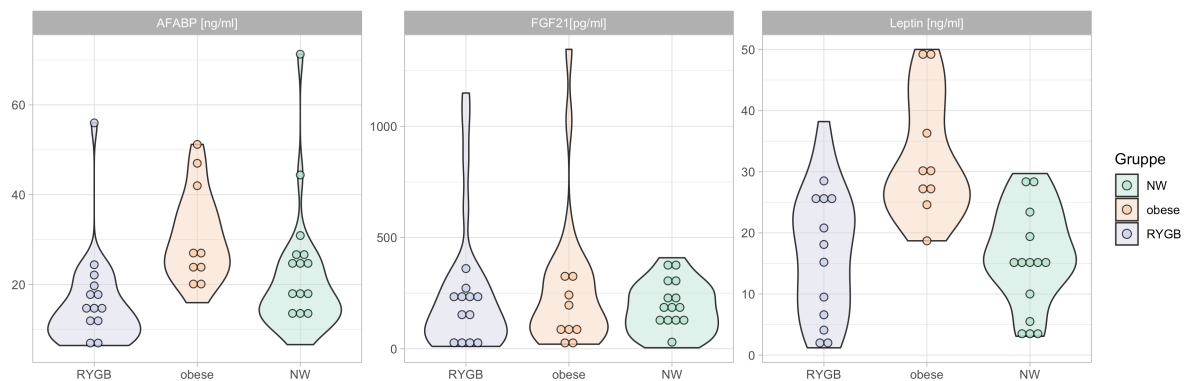


Figure S 2: Violin-dot-plot for the adipokines and group comparisons of Figure 1 and Table S1

Table S3: Longitudinal changes of adipokines (pregnancy vs. postpartum)

	gestational	post-partum	p-value	Adj. p value
RYGB				
Leptin [ng/ml]				
n	21	12	0.57 <sup>1</sup>	1 <sup>1</sup>
Mean (SD)	17.74 (10.08)	15.32 (10.11)		
AFABP [ng/ml]				
n	21	13	0.32 <sup>2</sup>	1 <sup>2</sup>
Mean (range)	11.19 (6.43 - 24.55)	15.85 (6.4 - 55.98)		
FGF21 [pg/ml]				
n	20	13	0.63 <sup>2</sup>	1 <sup>2</sup>
Mean (range)	131.22 (10.69 - 1150.8)	157.04 (20.18 - 9354.06)		
obesity				
Leptin [ng/ml]				
n	18	9	0.32 <sup>1</sup>	1 <sup>1</sup>
Mean (SD)	31.28 (8.86)	32.52 (10.57)		
AFABP [ng/ml]				
n	18	9	0.92 <sup>2</sup>	0.92 <sup>2</sup>
Mean (SD)	28.91 (15.96 - 46.56)	29.51 (19.19 - 51.17)		
FGF21 [pg/ml]				
n	18	9	0.03 <sup>2</sup>	0.28 <sup>2</sup>
Mean (SD)	196.34 (26.73 - 1345.86)	108.89 (20.7 - 334.97)		
NW				
Leptin [ng/ml]				
n	19	14	0.02 <sup>1</sup>	0.22 <sup>1</sup>
Mean (SD)	19.14 (5.90)	14.36 (8.59)		
AFABP [ng/ml]				
n	19	14	0.002 <sup>2</sup>	0.024 <sup>2</sup>
Mean (SD)	14.13 (6.61 - 25.29)	23.39 (13.21 - 71.29)		
FGF21 [pg/ml]				
n	17	14	0.03 <sup>2</sup>	0.28 <sup>2</sup>
Mean (SD)	101.62 (4.7 - 409.26)	180.3 (29.99 - 396.28)		

Table S 3: Comparison of adipokines between gestational versus post-partal period in women with a history of RYGB, women with obesity and normal-weight controls. RYGB = Roux-En-Y gastric bypass, NW = normal weight, AFABP = adipocyte fatty acid binding protein, FGF21 = fibroblast growth factor 21, 1 = Student's paired t test, 2 = Student's paired t test (after log10 transformation)