

Supplemental Table A. Plasma levels of C-peptide during oral glucose tolerance test in octogenarians and middle-aged (younger) controls

		NGT-Oc n=62	IGT-Oc n=63	T2D-Oc n=29	p*	NGT-Y n=24	T2D-Y n=33	p [#]	NGT-Oc vs. NGT-Y p	T2D-Oc vs. T2D-Y p
C-peptide 0 min	mean 95% CI	1158 968-1348	1255 1064-1445	1477 1239-1714	0.044 ¹	726 204-1248	1157 816-1498	0.065	< 0.001	0.129
C-peptide 30min	mean 95% CI	3574 3099-4049	3352 2876-3828	3457 2863-4051	0.657	2229 925-3533	2287 1436-3139	0.588	0.001	0.003
C-peptide 60min	mean 95% CI	4401 3858-4944	4254 3711-4798	4478 3800-5157	0.777	3147 1658-4637	3317 2344-4290	0.857	0.004	0.012
C-peptide 90min	mean 95% CI	4432 3805-5059	4989 4361-5616	5605 4820-6390	0.020 ¹	2746 1006-4486	4402 3268-5537	0.001	< 0.001	0.039
C-peptide 120min	mean 95% CI	4091 3458-4724	5326 4693-5960	6295 5504-7086	< 0.001 ¹ 0.002 ²	2089 352-3825	4295 3160-5429	< 0.001	< 0.001	0.001

C-peptide concentration in pmol/L; data adjusted to age, sex and BMI;

* ANCOVA including NGT-Oc, IGT-Oc, T2D-Oc; # ANCOVA including NGT-Y and T2D-Y;

Bonferroni-test: 1: NGT-Oc vs. T2D-Oc, 2: NGT-Oc vs. IGT-Oc

Supplemental Table B. Plasma levels of proinsulin during oral glucose tolerance test in octogenarians and middle-aged (younger) controls

		NGT-Oc n=62	IGT-Oc n=63	T2D-Oc n=29	p*	NGT-Y n=24	T2D-Y n=33	p [#]	NGT-Oc vs. NGT-Y p	T2D-Oc vs. T2D-Y p
Proinsulin 0min	mean	6.2	6.4	7.3	0.881	4.2	15.6	0.007	0.469	0.029
	95% CI	2.8-9.7	5.3-7.5	5.9-8.7		3.1-5.4	8.3-22.8			
Proinsulin 30min	mean	15.8	16.5	17.8	0.787	11.2	27.7	0.015	0.110	0.112
	95% CI	12.4-19.3	13.2-19.8	14.0-21.6		8.7-13.7	16.1-39.4			
Proinsulin 60min	mean	24.7	24.6	31.8	0.178	18.2	44.5	0.015	0.107	0.207
	95% CI	20.1-29.3	20.0-29.2	24.3-39.3		13.0-23.4	26.1-62.9			
Proinsulin 90min	mean	30.0	38.4	50.3	0.009¹	27.7	72.8	0.002	0.007	0.297
	95% CI	16.4-43.5	24.8-52.0	33.0-67.7		10.4-35.6	47.4-98.2			
Proinsulin 120min	mean	32.1	51.5	66.4	< 0.001¹	18.1	74.5	0.003	0.003	0.660
	95% CI	26.7-37.4	40.0-62.9	48.6-84.2	0.013²	12.9-23.3	42.6-106.5			

Proinsulin concentration in pmol/L, data adjusted to age, sex and BMI;

* ANCOVA including NGT-Oc, IGT-Oc, T2D-Oc; # ANCOVA including NGT-Y and T2D-Y;

Bonferroni-test p< 0.05: 1: NGT-Oc vs. T2D-Oc, 2: NGT-Oc vs. IGT-Oc

Supplemental Table C. Plasma proinsulin/insulin ratio (Proins/Ins) during oral glucose tolerance test in octogenarians and middle-aged (younger) controls

		NGT-Oc n=62	IGT-Oc n=63	T2D-Oc n=29	p*	NGT-Y n=24	T2D-Y n=33	p [#]	NGT-Oc vs. NGT-Y p	T2D-Oc vs. T2D-Y p
Proins/Ins 0min	mean	0.076	0.084	0.089	0.759	0.076	0.126	0.080	0.998	0.145
	95% CI	0.055-0.097	0.063-0.106	0.064-0.113		0.045-0.108	0.082-0.170			
Proins/Ins 30min	mean	0.039	0.041	0.052	0.143	0.034	0.080	0.028	0.421	0.148
	95% CI	0.031-0.046	0.033-0.049	0.041-0.064		0.026-0.041	0.044-0.117			
Proins/Ins 60min	mean	0.064	0.066	0.073	0.858	0.047	0.084	0.080	0.244	0.560
	95% CI	0.047-0.082	0.049-0.084	0.055-0.090		0.037-0.058	0.048-0.121			
Proins/Ins 90min	mean	0.074	0.070	0.082	0.634	0.124	0.151	0.350	0.474	0.252
	95% CI	0.038-0.110	0.035-0.106	0.037-0.128		0.024-0.224	0.085-0.218			
Proins/Ins 120min	mean	0.137	0.108	0.112	0.218	0.164	0.135	0.487	0.333	0.440
	95% CI	0.112-0.161	0.082-0.133	0.081-0.142		0.097-0.232	0.083-0.188			

Data adjusted to age, sex and BMI; * ANCOVA including NGT-Oc, IGT-Oc, T2D-Oc; # ANCOVA including NGT-Y and T2D-Y;

Bonferroni-test p< 0.05: 1: NGT-Oc vs. T2D-Oc, 2: NGT-Oc vs. IGT-Oc

Supplemental Table D. Partial correlation analysis of total adiponectin and adiponectin multimer complexes with clinical parameters of octogenarians

		Total adiponectin		HMW-adiponectin		MMW-adiponectin		LMW-adiponectin		LMW/total adiponectin	
		Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
Hip	r	-0.352	-0.300	-0.323	-0.296	-0.536	-0.206	-0.154	-0.217	0.351	0.087
	p=	0.007	0.004	0.014	0.004	<0.001	0.050	0.250	0.039	0.007	0.412
WHR	r	0.185	-0.001	0.207	-0.048	0.151	0.027	0.090	0.074	-0.050	0.177
	p=	0.166	0.991	0.119	0.651	0.258	0.801	0.500	0.487	0.709	0.094
Total cholesterol	r	0.408	0.203	0.332	0.169	0.502	0.073	0.374	0.291	-0.140	0.116
	p=	0.001	0.054	0.011	0.110	<0.001	0.489	0.004	0.005	0.225	0.272
HDL-cholesterol	r	0.531	0.399	0.494	0.383	0.540	0.222	0.427	0.370	-0.193	-0.033
	p=	<0.001	<0.001	<0.001	<0.001	<0.001	0.034	<0.001	<0.001	0.147	0.760
Triglycerides	r	-0.103	-0.301	-0.070	-0.290	-0.063	-0.337	-0.181	-0.088	-0.090	0.324
	p=	0.439	0.004	0.601	0.005	0.640	0.001	0.174	0.406	0.502	0.002
Plasma Glucose 0 min OGTT	r	-0.286	-0.108	-0.250	-0.096	-0.190	0.004	-0.347	-0.187	-0.174	-0.062
	p=	0.030	0.310	0.058	0.363	0.152	0.967	0.008	0.075	0.191	0.562
Plasma Glucose 120 min OGTT	r	-0.145	-0.177	-0.088	-0.141	-0.006	-0.108	-0.342	-0.220	-0.368	0.002
	p=	0.278	0.094	0.511	0.184	0.963	0.309	0.009	0.036	0.004	0.987
Insulin 0 min OGTT	r	0.091	0.001	0.122	-0.012	0.175	-0.028	-0.087	0.063	-0.283	0.073
	p=	0.499	0.990	0.361	0.912	0.189	0.794	0.517	0.554	0.031	0.493
Insulin 120 min OGTT	r	-0.119	-0.290	-0.097	-0.254	-0.001	-0.250	-0.224	-0.226	-0.164	0.090
	p=	0.373	0.005	0.468	0.015	0.997	0.017	0.091	0.031	0.218	0.394

r: Partial correlation coefficient controlled for BMI; men: n= 58, women: n=96