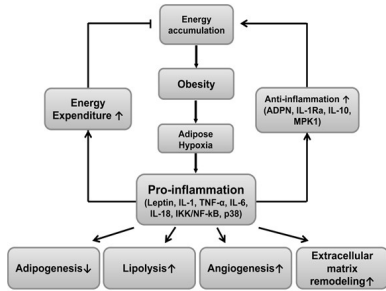


비만군 장병의 영양실태

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한남대학교

Obesity, inflammation and DNA repair



Ye et al, AJP, 2013

Study subject

- 성인(20-29세)남자, nonsmoker
- 신체조성(Body Composition), 허리둘레 및 혈압측정
- 혈액 채취 및 분석 방법
- 식이섭취 빈도 조사를 통한 영양상태 평가
- FFQ and 24hr recall survey
- 건강관련 삶의 질(Health-related quality of life, SF-36)
- 연구대상 동의서(국군 의무사령부 IRB승인)

훈련 중 추가 운동프로그램

저항성 운동	유산소 운동
근력운동 : ● 팔굽혀 펴기 ● 스쿼트 ● 점핑런지 ● 제자리 높이뛰기 ● 버피테스트 ● 윗몸일으키기 ● 플랭크	● 연병장 걷기운동 (VO2max 60 ~ 70%) ● 줄넘기 ● 20M 셔틀런

Subject characteristics

Variable	normal (n=28)	obesity (n=28)	total (n=56)	male
				(From Korean DRI, 2015)
Age (yr)	20.5±0.7	20.4±0.7	20.4±0.7	19~29
Height (cm)	173.9±3.7	179.7±4.7***	176.8±5.1	174.8
Weight (kg)	62.5±4.4	99.7±6.3***	81.1±19.5	68.7
BMI ¹⁾ (kg/m ²)	20.7±1.2	30.9±1.6***	25.8±5.3	22.5
PIBW ²⁾ (%)	93.7±5.7	139.6±7.3***	116.7±24.0	—

¹⁾Body mass index=weight(kg)/height(m²)

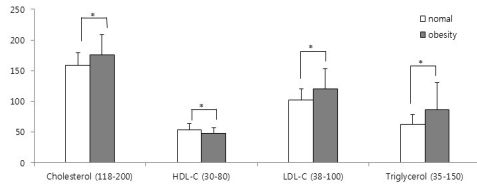
²⁾Percentage ideal body weight=(body weight/ideal body weight) x100

***P<0.001

Blood analysis I

Variable	normal (n=28)	obesity (n=28)	total (n=56)
Cholesterol (mg/dl)	158.6±20.4	175.8±32.4'	167.2±28.2
HDL - C	53.7±9.7	48.0±8.4'	50.9±9.5
LDL - C	101.4±18.9	119.7±33.2'	110.6±28.3
Triglycerol (mg/dl)	62.2±15.6	86.2±43.7'	74.2±34.7

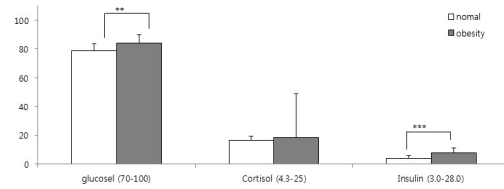
*P<0.05



Blood analysis II

Variable	normal (n=28)	obesity (n=28)	total (n=56)
glucose (mg/dl)	78.6±4.9	84.0±6.0''	81.3±6.1
Cortisol (µg/dl)	16.6±2.9	18.5±30.6	17.5±21.6
Total IGE (IU/ml)	393.0±655.8	149.0±240.8	271.0±504.7
Insulin (mIU/L)	4.2±1.6	7.8±3.3'''	6.0±3.2

''P<0.01, '''P<0.001

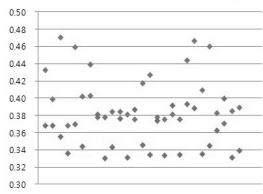


Blood analysis III

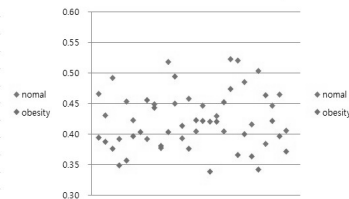
Variable	normal	obesity	total	
Insulin sensitivity	1차 (1wks)	0.40±0.33	0.36±0.28'''	0.39±0.05
	2차 (4wks)	0.44±0.05	0.40±0.04''	0.43±0.05

''P<0.01 '''P<0.001

1차 Insulin sensitivity



2차 Insulin sensitivity



Food intake I

Nutrients	normal (n=28)	obesity (n=28)	total (n=56)	male (19~29세)
				(From Korean DRI, 2015)
Energy (kcal)	2821.9±1379.8	3295.0±1193.0	3058.5±1300.1	2600
protein (g)	105.4±54.9	140.4±66.4*	122.9±62.9	65
Animal	56.0±34.4	84.0±50.3*	70.0±45.0	—
Vegetable	49.4±24.7	56.4±20.9	52.9±23.0	—
Fat (g)	78.9±51.1	93.9±51.4	86.4±51.3	—
Animal	38.0±24.3	56.8±34.2*	47.4±30.9	—
Vegetable	40.9±32.6	37.1±20.9	39.0±27.2	—
Carbohydrate (g)	431.0±202.4	476.4±140.3	453.7±174.1	—
Cholesterol (mg)	497.1±297.8	574.2±328.4	535.7±313.0	300
Dietary fiber (g)	29.6±21.0	32.9±15.1	31.2±18.2	25
Carbo:Pro:Fat	60:15:25	58:17:25	59:16:25	55~65 : 7~20 : 15~30

*P<0.05

