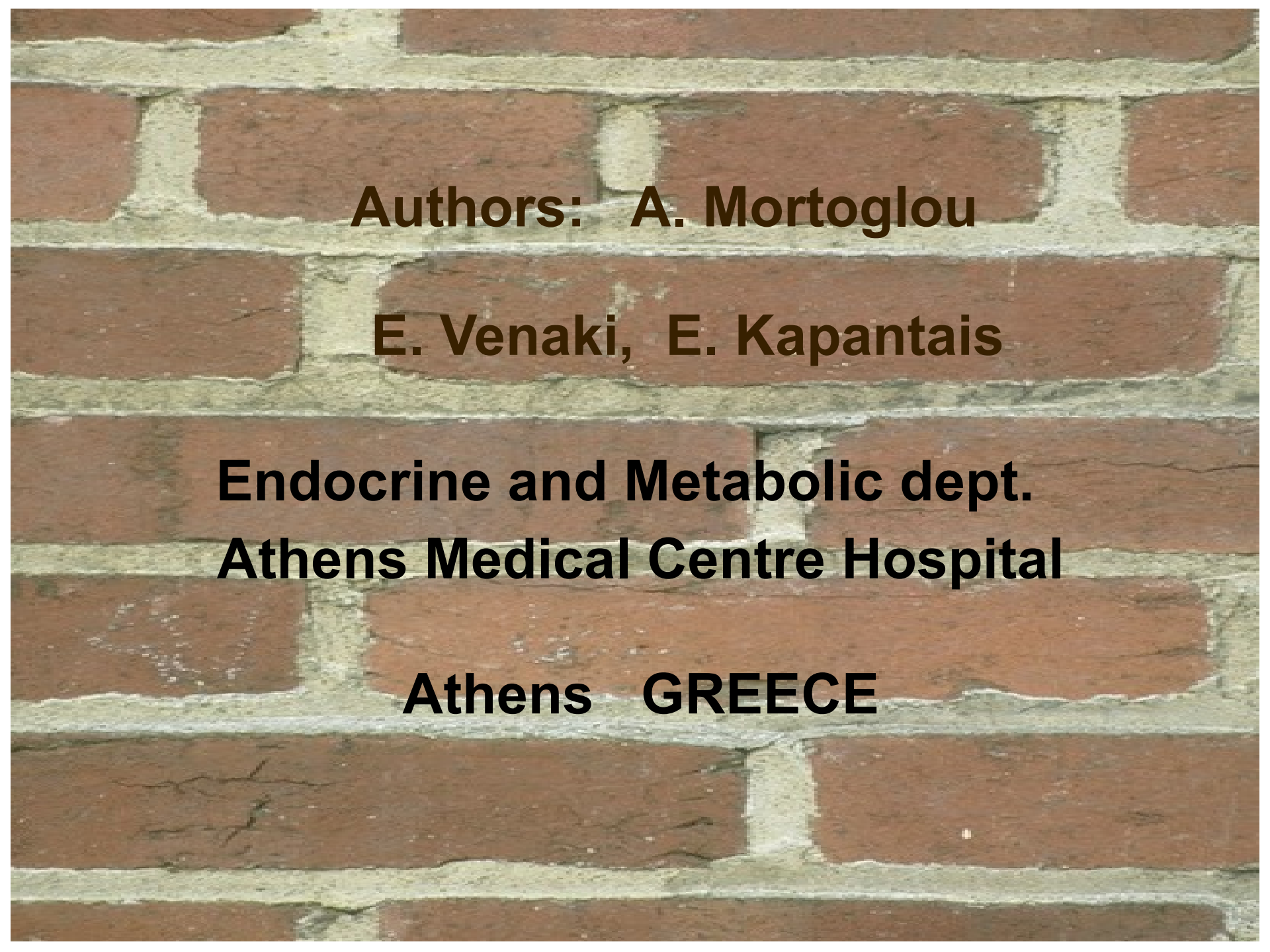


The background of the slide is a close-up photograph of a red brick wall with light-colored mortar joints. The bricks are arranged in a standard running bond pattern.

**THE INFLUENCE
OF THYROID HORMONE
LEVELS ON RESTING
METABOLIC RATE
IN EUTHYROID FEMALES**

**6th European Congress on Obesity
1995**

A close-up photograph of a red brick wall with light-colored mortar. The bricks are arranged in a standard running bond pattern. The text is overlaid on the wall in a bold, black, sans-serif font.

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Introduction

Most of the overweight persons tend to ascribe their obesity to metabolic disturbances and mainly to thyroid dysfunction. In the majority of cases hypothyroidism cannot be proved, at least by the contemporary diagnostic approaches.

Aim of this study is to investigate if serum Thyroid hormone levels, in the normal range, can affect RMR in female individuals.

Subjects & Methods

80 non-diabetic women

Age 13-74 years old

Body weight 59 -139 kg

Body mass index (BMI) 22.66-51.06

Determinations: TT4, TT3 and TSH at 0' and 30' after 200 μ g TRH I.V.

RMR-Indirect calorimetry (DELTATRAC II)

Free fat mass (FFM) by electrical impedance.

Results

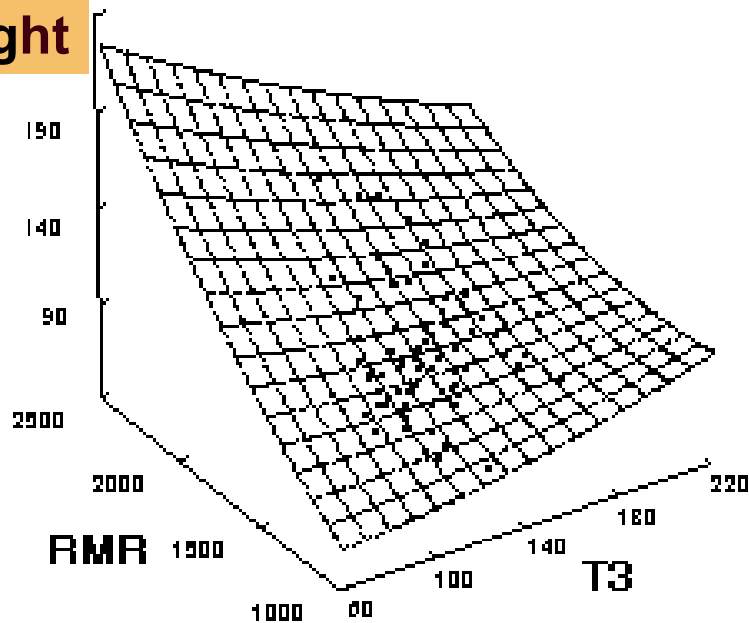
TT4= 8.56 ± 1.4 $\mu\text{g/dl}$

TT3= 139.9 ± 20.7 ng/dl

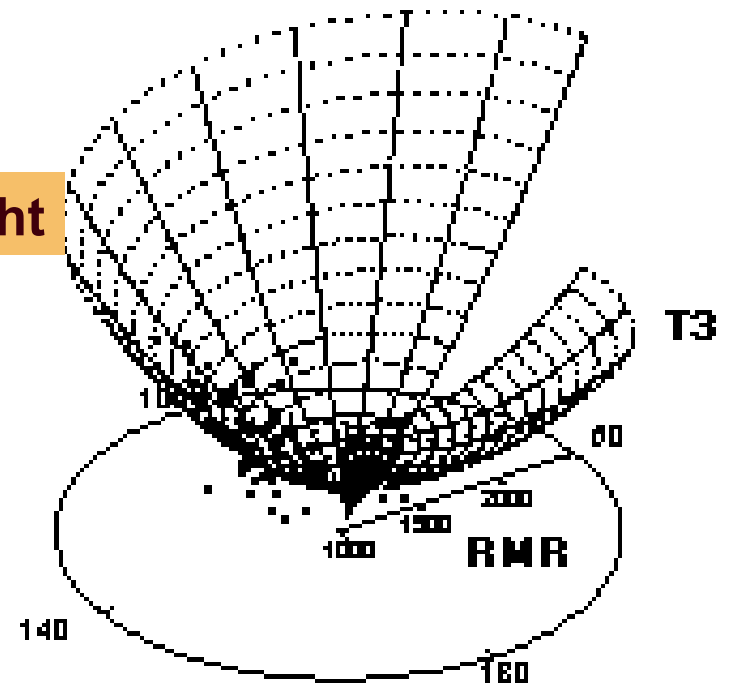
TSH= 2.30 ± 1.07 U/ml

$\Delta\text{TSH} = 13.88 \pm 4.87$ U/ml

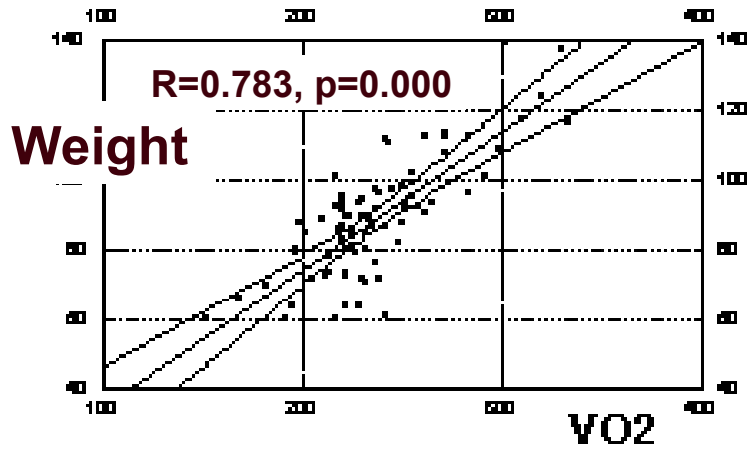
Weight



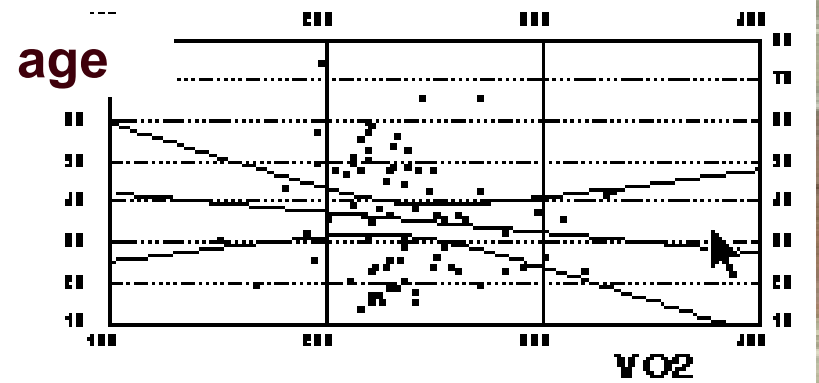
Weight



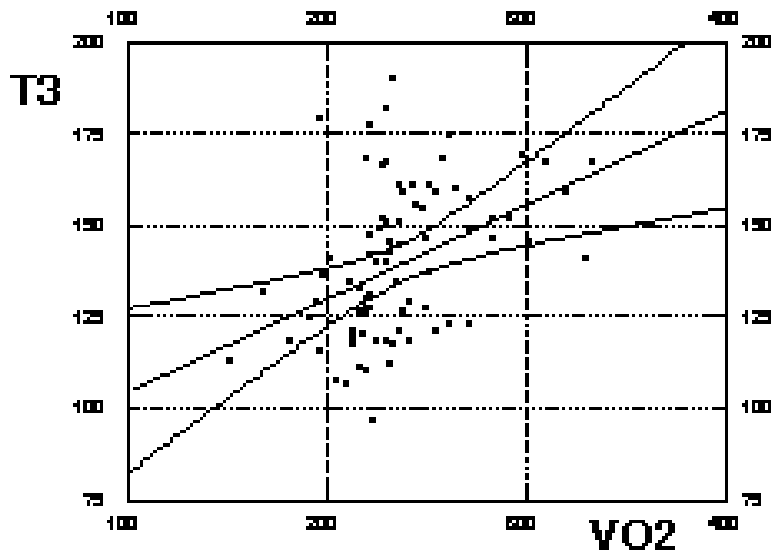
Results

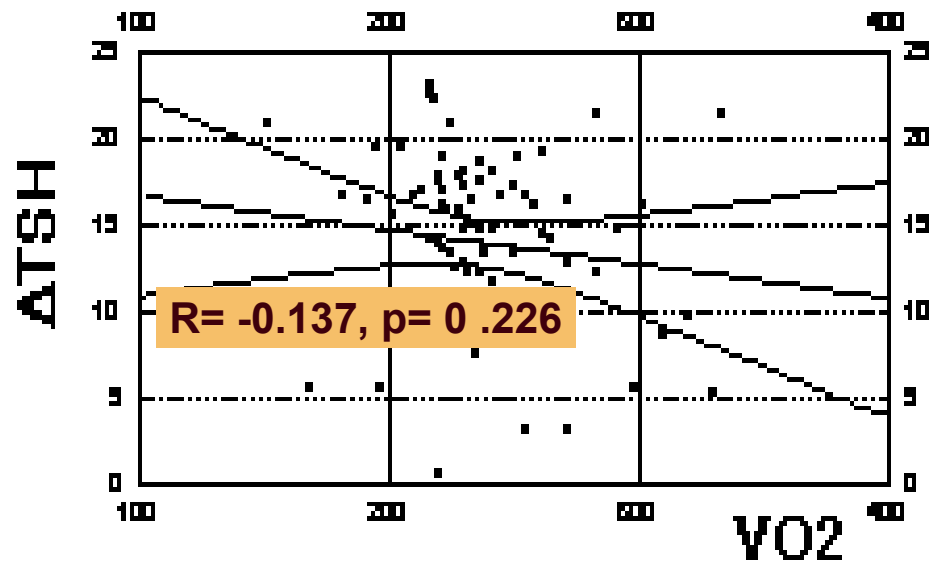
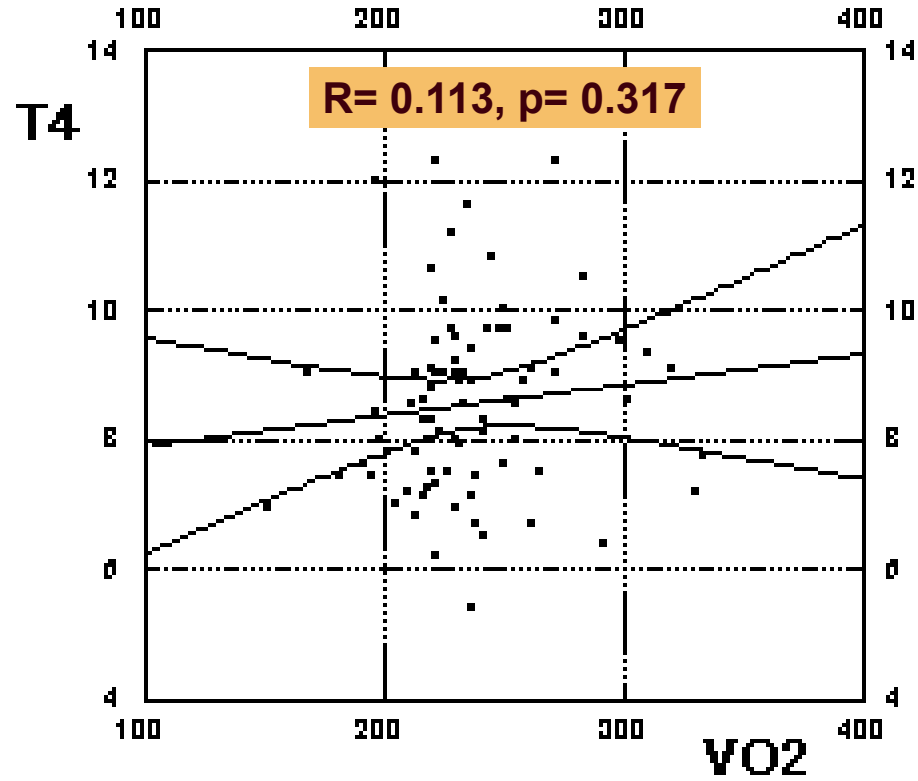
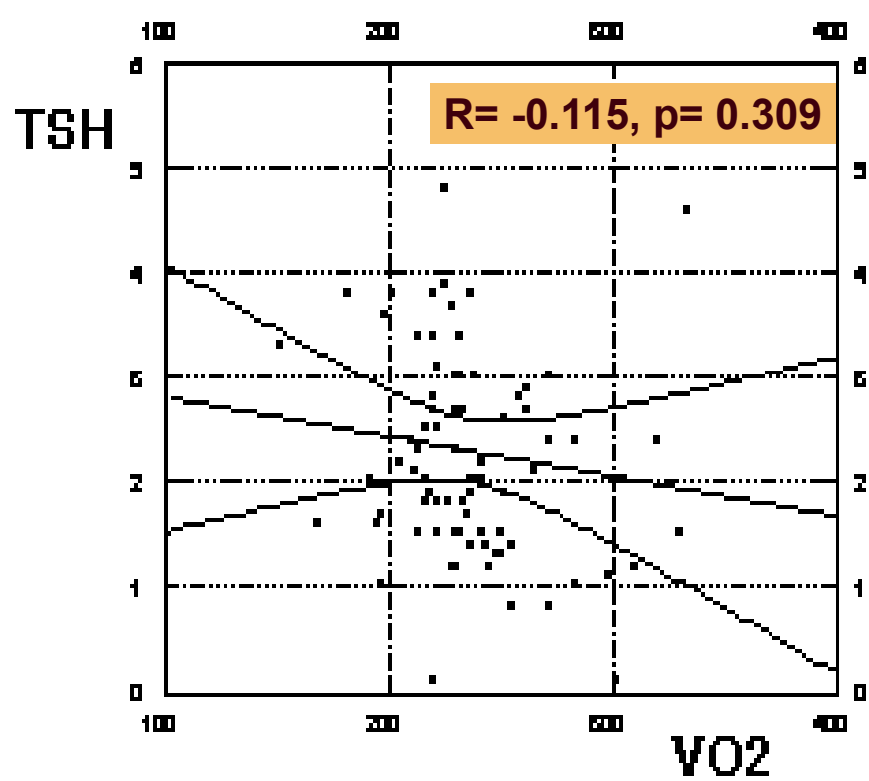


$R= -0.112, p=0.322$



$R=0.410, p=0.000$





Regression

DEP VAR: RMR, N: 80 MULTIPLE R: 0.844, SQUARED
MULTIPLE R: 0.712,

ADJUSTED SQUARED MULTIPLE R: 0.688, SEE: 128.729

VARIABLE	COEF.	STD ERROR	STD COEF	TOLER.	T	P
CONSTANT	509.059	145.678	0.000	3.494	0.001	
WEIGHT	10.543	0.916	0.766	0.892	11.506	0.000
AGE	-2.969	1.054	-0.186	0.907	-2.818	0.006
T4	-9.924	12.181	-0.060	0.718	-0.815	0.418
T3	2.718	0.825	0.244	0.720	3.294	0.002
TSH	9.874	15.498	0.046	0.755	0.637	0.526
ΔTSH	-1.438	3.424	-0.030	0.753	-0.420	0.676

Conclusion

In euthyroid women deviations of thyroid hormones levels in the acceptable normal range influence significantly RMR.

It is calculated that 1 ng/dl TT3, affect RMR by 2.7 kcal/24h.