

THE PHENOMENON OF LIPOGLUCOTOXICITY IN POSTMENOPAUSAL WOMEN**L. Ruyatkina¹, D. Ruyatkin¹, I. Iskhakova²**¹*Urgent therapy with endocrinology and profpathology, Federal State Budget Educational Institution High Education "Novosibirsk State Medical University» of the Ministry of Health of Russian Federation», Russia*²*Endocrinology, State Budget Healthcare Institution of Novosibirsk region "City Clinical Hospital #1", Russia*

Purpose: To evaluate the TyG and TyG/BMI indexes in postmenopausal women as clustering metabolic syndrome (MS). **Methods:** The 94 postmenopausal women aged 58.02 ± 5.88 rated for NCEP ATP III were divided into 3 groups according to the level of glycated hemoglobin (HbA1c). Group 1 comprised 52 women (48 had 3 MS signs, 4 only 2) with type 2 diabetes mellitus (T2DM); 16 with prediabetes (8 with MS, the rest had 1-2 signs of MS) were group 2; group 3 comprised 26 normoglycemic women (8 had 1-3 signs of MS). TyG and TyG/BMI were determined. Statistical processing was performed using STATISTICA (version 7.0). We evaluated: $M \pm SD$; Spearman's correlation coefficient (r); achieved significance level (p) 0.05. **Results:** HbA1c levels in groups of 1-3 were: 7.3 ± 1.0 ; $6.2 \pm 0.2\%$ and $5.5 \pm 0.4\%$, respectively. The indexes were respectively in groups 1-3: TyG: 8.45 ± 0.42 ; 7.81 ± 0.27 ; 7.75 ± 0.37 ($p_{1-3} = 0.0003$; $p_{1-2} = 0.0001$; TyG/BMI 282.5 ± 57.4 ; 242.7 ± 61.6 ; 199.5 ± 36.2 (p between groups ≤ 0.040). During the ROC analysis cut-off for TyG was detected, reflecting the chance of having T2DM in groups 2 and 3: respectively it is 7.5 (sensitivity 0.938; specificity 0.813) and 8.0 (sensitivity 0.889; specificity 0.810). TyG/BMI correlates with waist circumference, duration of hypertension and menopause. **Conclusions:** TyG and TyG/BMI indexes reflect the progression of dysglycemia and the formation of MS in postmenopausal women through the phenomenon of lipoglucotoxicity. **Financial Disclosure:** No

Headquarters and Administration:Rothschild Boulevard
PO Box 68
Tel Aviv 61000, Israel
Tel: +972-3-5666166
Fax: +972-3-5666177
Email: info@comtecmed.com**Comtec Spain:**Bailén, 95-97
prat. I. a - 08009
Barcelona, Spain
Tel: +34-93-2081145
Fax: +34-93-4579291
Email: spain@comtecmed.com**Comtec China:**Suite 504, Universal Center Building
175 Xiang Yang Road South
Shanghai 200031, China
Tel: +86-21-54660460
Fax: +86-21-54660450
Email: china@comtecmed.com