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Poster Title

Comparative lipid evaluation in patients with type 2 diabetes mellitus on continuous subcutaneous insulin infusion and multiple daily injections.

Background

Type 2 diabetes accounts for 90% of all types of diabetes [1].

Diabetes mellitus is a chronic metabolic disease that often

exacerbates lipid metabolism, affects weight. Several studies have been devoted to the study of

body mass index (BMI) in people with diabetes on a continuous subcutaneous insulin infusion (CSII) [2,3,4].

Extremely little has been studied about the lipid changes

in patients with diabetes on the CSII. Thus, people with type 2 diabetes need more detailed research on (CSII) [5].

Objectives:

To study lipid parameters in patients with type 2 diabetes on a CSII and MDI.

Materials and methods

In this research work, lipid data (Cholesterol, Triglycerides, HDL, LDL) were compared in patients with type 2 diabetes who were

on CSII (n = 105) and MDI (n = 105).

All patients were divided into subgroups by age (45-50; 51-55; 56-65 years); on the duration of the disease (5-10 years; 11-15 years; 16 years and above) and on gender differences (men and women).

Conclusion

The method of treatment of CSII influenced the level of lipids, in patients cholesterol was lower compared to the MDI. However, CSII did not affect triglycerides, only in female.

Results

Comparative analysis showed high statistical confidence between the average cholesterol levels of the studied groups at the level of $p \le 0.001$. Similarly, it was with HDL, at the level of $p \le 0.001$. When comparing only in women, LDL was found to be statistically significant ($p \le 0.05$). Comparison of the average values of triglycerides by sex, age, duration of the disease was not found a significant statistical significance (p > 0.05).

References

- 1) International Diabetes Federation; 2015. http://www.diabetesatlas.org.
- Karges B, Schwandt A, Heidtmann B, Kordonouri O, et al. «Association of Insulin Pump Therapy vs Insulin In jection Therapy With Severe Hypoglycemia, Ketoacidosis, and Glycemic Control Among Children, Adolescents, and Young Adults With Type 1 Diabetes». «JAMA» 2017 Oct 10; 318(14):1358-1366. https:// www.ncbi.nlm.nih.gov/pubmed/
- 3) Pickup JC, Reznik Y, Sutton AJ.
 «Glycemic Control During Continuous Subcutaneous Insulin Infusion Versus Multiple Daily Insulin Injections in Type 2 Diabetes: Individual Patient Data Meta-analysis and Meta-regression of Randomized

- Controlled Trials». <u>Diabetes Care.</u> 2017 May;40(5):715-722. doi: 10.2337/dc16-2201.
- 4) A.Sh. Seidinova, I.A. Ishigov, P. Cinaz. «PP4.31 Comparative analysis of the body mss index (BMI) of patients with type 2 diabetes mellitus on CSII therapy and MDI», 6. KONGRES ENDOKRINOLOGA SRBIJE sa međunarodnim učešćem, PROGRAM ZBORNIK SAŽETAKA, Beograd, 18 21. November 2018. Abstract
- Seidinova A, Ishigov I, Peyami C, Seidinov S. Effectiveness of pump insulin therapy in the treatment of type 2 diabetes mellitus (REVIEW). Georgian Med News. 2018 Nov; (284):51-55.