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### **Impact of obesity on the level of glycaemic control in type 2 diabetic patients**

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**Background & Aim:** Obesity is associated with an increased risk of developing insulin resistance which is the major risk factor for type 2 diabetes. We aimed to assess the correlation between obesity and level of glycaemic control (measured by fasting blood glucose and HbA1c levels) in patients with type 2 diabetes mellitus.

**Methods:** The study included 103 examinees diagnosed with type 2 diabetes that are treated in three family medicine outpatient departments of the ECPM Polyclinic, Primary Health Centre Banja Luka. Examinees were selected from the Registry of patients with diabetes. The study was carried out on the basis of analysis of the data extracted from patients' medical records and examinees-centred interviewing. Examinees were interviewed about dietary habits and physical activity. Data on age, duration of illnesses, fasting blood glucose level, HbA1c level and lipid status were extracted from patients' medical records. Blood pressure and waist-hip ratio of each examinee was measured and body mass index (BMI) calculated. Survey data were entered in a questionnaire developed for our study, statistically analysed, and the results are presented in tables and graphs.

**Results:** Out of 103 examinees, 55.3% were female and 44.7 % male. During the survey period 12.6% of the examinees were non-obese, 46.6% overweight and 40.8% obese. No statistically significant correlation was observed between the degree of obesity and fasting blood glucose level ( $p=0.88$ ) and HbA1c level ( $p=0.65$ ). No statistically significant difference between waist-hip ratio of male and female examinees and fasting blood glucose and HbA1c levels was found.

**Conclusion:** The results of this study indicate that there is no positive correlation between the obesity (measured by body mass index and waist-hip ratio) and the level of glycaemic control in examinees with type 2 diabetes.