The exfoliative cytology has previously shown changes in oral desquamated cells in patients with type 2 diabetes mellitus (DB2). The objective of this research was to determine the ability to identify the presence of DB2 from these changes. By oral exfoliative cytology diabetic patients (n = 30) and controls (n = 30) were obtained (in two registers, with one month interval) values of nucleus diameter (DN), cytoplasmic diameter (DC), nucleus: cytoplasm ratio (RNC) and presence / absence of binucleation and karyorrhexis. In addition, the values of capillary glycemia and glycated hemoglobin (HbA1c) were recorded. The DB2 group showed a statistically significant increase in the DN and RNC (p value <0.05, Student’s t test) compared with patients without diabetes. An association between DB2 and karyorrhexis and binucleation (p value <0.05, Fisher exact test) also was observed. The model of binary logistic regression, which included the DN and DC variables poorly explained variance diagnosis with moderate sensitivity and specificity for classification of patients with DB2. The cells of the oral mucosa of patients with DB2 have an increased nuclear and RNC diameter correlated with the values of glycemia, however DB2 is not classifiable from these analyses.

Keywords: diabetes mellitus type 2; cytological techniques; mouth mucosa.