## МІНІСТЕРСТВО ОСВІТИ ТА НАУКИ УКРАЇНИ СУМСЬКИЙ ДЕРЖАВНИЙ УНІВЕРСИТЕТ МЕДИЧНИЙ ІНСТИТУТ



## АКТУАЛЬНІ ПИТАННЯ ТЕОРЕТИЧНОЇ ТА КЛІНІЧНОЇ МЕДИЦИНИ

**Topical Issues of Theoretical and Clinical Medicine** 

## ЗБІРНИК ТЕЗ ДОПОВІДЕЙ

V Міжнародної науково-практичної конференції студентів та молодих вчених (м. Суми, 20-21 квітня 2017 року)

Суми Сумський державний університет 2017 **Results:** Among 412 patients with diabetes 28 persons  $(6.8\pm1.24\%)$  were diagnosed with cancer in comparing to 14 persons  $(3.9\pm0.98\%)$  among 402 patients without diabetes (p<0.05). Patients with type 2 diabetes have the higher risk of development of cancer (OR=1.87; 95%) CI: 0.9 to 3.5; P=0.05.

Diabetic patients of the both groups were representative of the duration of diabetes, BMI, mean baseline  $HbA_1C$ .

HOMA index in diabetic patients of the  $1^{st}$  group was higher (6,3±0,46) compared with HOMA (5,0±0,39) of the 2nd group (p<0.05). From the 2nd group, 20 (71.4%) subjects had IR compared with 26 subjects (92.8%) from the  $1^{st}$  group (OR=5.2; 95 % CI: 0.9 to 27.2; P=0.05).

**Conclusion:** Patients with type 2 diabetes have the increased risk of development of cancer. Insulin resistance may lead to an increased risk of malignant tumors.

## ADVANTAGES OF INCRETIN-BASED TREATMENT IN MANAGEMENT OF TYPE 2 DIABETES

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The risk of hypoglycemia with sulfonylureas is higher in the presence of diabetic nephropathy. Selective DPP-4 inhibitors lead to physiologic increases in the incretins GLP-1 and gastric inhibitory polypeptide and preferable for the management of postprandial hyperglycemia due to lack of many adverse effects observed with other diabetes medications.

*Study objectives:* to assess the effect of sitagliptin when added on to ongoing metformin therapy in patients with type 2 diabetes and diabetic nephropathy.

*Methods:* 65 patients with type 2 diabetes, stage 2 or 3 of chronic kidney disease (CKD) and inadequate glycemic control defined as HbA1c  $\geq$ 7.0% and  $\leq$ 10.0% took part in this study. Before randomization they were on stable dose of metformin (2g/day) for 12 weeks. 35 patients of the 1<sup>st</sup> group continued treatment by metformin in combination with 2mg glimepiride. 30 patients of the 2<sup>nd</sup> group had received sitagliptin at 50 mg/day in addition to metformin. All patients received dietary and lifestyle advice. 20 healthy persons were in control group.

The levels of glycosylated haemoglobin (HbA<sub>1</sub>C), fasting plasma glucose (FPG), postprandial glucose (PG) were explored. Statistical processing of results was carried out using SPSS statistics 21.

*Results:* Patients of the both groups were representative of the duration of diabetes, stage of CKD, mean baseline  $HbA_1C$ .

In 3 months of treatment glycemic control improved similarly in both groups. Antihyperglycemic therapy with sitagliptin lead to reduction in levels of HbA<sub>1</sub>C from (8,9±0,14) to (7,4±0,12) % (p<0.05). HbA<sub>1</sub>C of patients from the  $2^{nd}$  group in 3 months after treatment was (7,2±0,14) % (p>0.05).

During treatment period (22.9 $\pm$ 7.2) % of patients from the 1<sup>st</sup> group reported hypoglycemia compared to (6.6 $\pm$ 4.63) % persons of the 2<sup>nd</sup> group (p<0.05).

Conclusion: Adding a sitagliptin to background metformin therapy in poorly controlled patients with diabetic kidney disease leads to improvement in glycemic control and low risk of hypoglycemia compared with sulfonylurea.