

PO190 Change in Bodyweight and Improving Adiponectin Level During Gliptin Therapy in T2DM- Mets

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CHANGE IN BODYWEIGHT AND IMPROVING ADIPONECTIN LEVEL DURING
GLIPTIN THERAPY IN T2DM-METS

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Background: Present study showed that despite the significant relationship of adiponectin with fasting triglyceride level and abdominal obesity in T2DM-MetS. In such patients, successful weight loss can improve glycemic control, as well as reduce concomitant cardiovascular risk factors, like hypertension and dyslipidemia. Large fat cells resist insulin-mediated lipolysis suppression, resulting in excess release of free fatty acid (FFA). Gliptin inhibits fat extraction from the gut, although it is in lesser degree compare with a lipase inhibitor agent such orlistat, this could be the one benefit of the Gliptin therapy. Adiponectin is synthesized at the adipocytes tissue and

delivered into the bloodstream. High levels of adiponectin give benefits as anti-diabetic and anti-atherosclerotic effects. Weight loss during Gliptin therapy, probably caused by a reduction in visceral fat, and consequently there will be an increased in levels of adiponectin. This study aimed to see the correlation between the change of bodyweight and adiponectin improvement during gliptin therapy in T2DMMetS patients.

Method: This is a retrospective study. We select 300 medical records from private out patient diabetes and endocrine clinic patients. And 60 patients were eligible to involve in our study. We select patient who received oral diabetic agent, subject with insulin, Thiazolidinediones and calcium channel blocker were eliminate from this trial. During the observation for 24 weeks, 10 subjects were eliminated because of dose adjustment on their oral anti diabetics agent, and addition of other anti diabetic agent. We collect the data such as bodyweight, age, HbA1c, and adiponectin level from the beginning and at the end of observation period. We calculate the change of body weight, HbA1c level, and Adiponectin. We analyzed the relationship between changes in body weight and levels of adiponectin using spearman test.

Result: The subjects mean of age were: 58.98 ± 10.03 years, average levels in A1C before therapy: 8.72 ± 2.08 while after giving gliptin therapy is 7.51 ± 1.911 . While for the average levels of adiponectin before given gliptin therapy are 5.77 ± 2.49 and after therapy was 5.87 ± 2.46 . For the mean of body weight before gliptin therapy: 82.22 ± 14.54 kg, and after gliptin therapy was 81.22 ± 14.15 . And the mean of adiponectin level was 5.77 ± 2.49 , and after gliptin therapy: 5.87 ± 2.46 . there was significant in decrease of bodyweight ($r = -0.997$; $p < 0.001$); significant improvement in adiponectin level ($r = -0.998$; $p < 0.001$). Statistical analysis between two variables show no significant correlation between bodyweight change and adiponectin improvement ($r = 0.697$; $p < 0.001$).

Conclusion: Decrease of bodyweight in this study doesn't have significant correlation with Improvement of adiponectin levels. The adiponectin improvement probably through the other pathomechanism. Reactive Oksigen spesies and other pro-oksidan which are altering the adiponectin level, could be the explainable cause for these results. Reference(s) Foley JE³, Jordan J (2010) Weight neutrality with the DPP-4 inhibitor, vildagliptin: mechanistic basis and clinical experience. Vasc Health Risk Manag 6: 541–548. Deacon CF, Holst JJ²(2013): Dipeptidyl peptidase-4 inhibitors for the treatment of type 2 diabetes: comparison, efficacy and safety. Expert Opin Pharmacother 2013, 14: 2047–2058. D'iaz-Soto G, de Luis DA, Conde-Vicente R, Izaola-Jauregui O, Ramos C, Romero E¹(2014): Beneficial effects of liraglutide on adipocytokines, insulin sensitivity parameters and cardiovascular risk biomarkers in patients with Type 2 diabetes: A prospective study. Diabetes Res Clin Pract 2014, 104: 92–96.

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