Effects of metformin and glimepiride on free fatty acid and insulin resistance in patients with Type 2 diabetes mellitus

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View from specialist: It is creative, and of certain scientific and educational value.

[ABSTRACT] Objective: To investigate the effect of glimepiride and metformine on free fatty acid and insulin resistance in patients with type 2 diabetes mellitus. Methods: The levels of FFA and HOMA- IR were compared between glimepiride group and metformine group as well as their combination treatment group before and after six months treatment. Results: The concentration of FFA did not significantly change in the glimepiride treated group at the end of treatment, but it obviously decreased in the metformin treated group and in the glimepiride plus metformin treated group (P<0.05 and P<0.001, respectively). The levels of fast insulin after six month treatment was higher than before in three groups, But glimepiride group difference was more significant than metformine group and combination group. The levels of HOMA- IR in three groups after six month was lower than before, but there were no significant differences in three groups. Conclusion: Glimepiride and metformine all improve Homa- IR in patients with type 2 diabetics, but glimepiride is better than metformine in treating hyperinsulina. And they can decrease FFA levels.

[KEY WORDS] glimepiride; metformin ; type 2 diabetes mellitus; free fatty acid; insulin resistance