



## **Comparative Evaluation of Vildagliptin-Metformin versus Glimepiride-Metformin on Inflammatory Markers and Glycemic Control in Type 2 Diabetes Mellitus: A Randomized, Open-Label Study**

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- Chronic low-grade inflammation is a component of insulin resistance, contributing to the development of various complications in diabetic patients.
- Detecting this silent inflammation is essential, with inflammatory markers such as interleukin-6 (IL-6), high-sensitivity C-reactive protein (hs-CRP) and erythrocyte sedimentation rate (ESR) playing a vital role in identifying cellular level inflammation.
- The study demonstrated that the combination of Vildagliptin and Metformin (n=40) led to a significant reduction in inflammatory markers hs-CRP and ESR, compared to the Glimepiride-Metformin combination (n=39) [41.39% vs. 15.69% and 17.64% vs. 14.28% respectively, p=0.001] and comparable glycemic control in both groups.
- These findings suggest that combining Vildagliptin with Metformin may offer a synergistic effect in reducing inflammation, potentially reducing microvascular and macrovascular complications in T2DM.

**Vildagliptin-Metformin could be a more effective therapeutic option for T2DM management, particularly in reducing inflammation.**

