Gliclazide therapy influences peripheral blood monocytes in patients with type 2 diabetes mellitus (T2DM).

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- Inflammatory cells (especially macrophages) often accumulate in adipose tissue, pancreas, kidney, and liver during pathogenesis of T2DM.
- Gliclazide regulates the process of monocyte differentiation into macrophages, and may be effective in reducing monocyte adhesion to vascular cells (antiinflammatory/anti-atherosclerotic effect).
- In a 16-week study of 105 newly diagnosed T2DM patients receiving gliclazide therapy, it was observed that the peripheral blood monocyte count was significantly lower than at baseline. It was also observed that the peripheral blood monocyte count correlated with waist circumference i.e., was lower in the non-abdominal obesity group.

Gliclazide exerts an anti-inflammatory effect by decreasing levels of peripheral blood monocytes.

It was observed that after gliclazide treatment, monocyte count correlated with waist circumference/obesity.