CLINICAL INSIGHTS

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Effects of sitagliptin on hematological parameters, erythropoietin levels, and renal and liver functions in patients with type 2 diabetes.

Alnaser R et.al; World Academy of Sciences J; 7:29, 2025.

- The purpose of this retrospective cohort study was to provide valuable methods for optimal patient treatment by revealing the prospective interaction between sitagliptin and erythropoietin (EPO) levels and hematological markers in patients with type 2 diabetic mellitus (T2DM).
- The patients were divided into three groups as follows: Group 1 (the control group) included 45 healthy individuals, group 2 consisted of 45 patients with T 2-DM treated with metformin daily as a monotherapy, and group 3 included 45 patients with T2-DM treated with a combination of sitagliptin plus metformin daily.(n=135)
- Blood samples were collected from these 135 participants to estimate the values of the glycemic status, renal and liver functions, complete blood count, ferritin and erythropoietin (EPO).
- The present study highlights the potential of sitagliptin to alter hematological parameters in patients with T2DM, which is closely associated with ferritin levels through the action of incretin hormone.

Sitagliptin's therapeutic effect on hematological parameters may help lower oxidative stress in hematopoietic cells.

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