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Thesis Title	**Effect of Sitagliptin on chronic plaque psoriasis of diabetic patients in Iraq**			
Year	**2016**			
Abstract	**Psoriasis represents a complex chronic systemic T cell immunemediated inflammatory disease characterized by erythematous, scaly plaques of skin and joints. Inflammatory mediators such as IL-17, IL-6, TNF-α and possibly oxidative stress process have stimulated abnormal proliferation of keratinocytes and differentiation resulting in characteristic appearance of psoriasis. Psoriatic patients with plaque psoriasis particularly those with high body mass index have increasing risk of developing a diabetes mellitus type 2 (DM2) and hyperlipidemia. Advance treatment of psoriasis with biological agents such as TNFantagonists and IL-17 antagonist like ustekinumab have been tried with a better result than traditional treatment. However their use have been limited in some patients, because of severe side effects. Sitagliptin is a dipeptidyl peptidase- IV (DPP-IV) inhibitor exerts anti-inflammatory effect when used in patients with type 2 diabetes without any reported severe side effects. Therefore the objective of current study was to assess the effect of Sitagliptin on psoriasis area and severity index (PASI) score in psoriatic patients with diabetes via interfering with metabolic syndrome parameters, inflammatory mediators and oxidative stress markers. Patients and Methods**			

	The study was conducted on 48 diabetic patients with moderate to severe plaque psoriasis who were divided into two groups: Placebo group (*n*=24) patients were administered placebo once daily plus dietary control and exercise for 12 weeks ; Sitagliptin group (*n*=24) patients were administered Sitagliptin tablet 100mg once a day plus dietary control and XIX exercise for 12 weeks. PASI score for all patients was assessed before and after 12 weeks of treatment. The fasting blood samples were obtained from the patients in both groups at baseline and after 12 week of therapy used to measure the concentration of serum fasting blood sugar (FBS), HbA1c, triglyceride(TG), cholesterol, low density lipoprotein (LDL), very low density lipoprotein (VLDL), high density lipoprotein (HDL), tumor necrosis factor alpha (TNF-α), intreleukin-17 (IL-17), intreleukin-6 (IL-6), intreleukin-10 (IL-10), malondialdehyde (MDA) and reduced glutathione (GSH), and to determine their correlation with PASI score after 12 weeks of treatment. Punch biopsies with size of 5mm diameter were performed for both groups at baseline and after 12 week of treatment and sent for histopathological examination and psoriasis histopathological score (PHS) was measured for patients in both groups at baseline and after 12 week of treatment. Results: Compared with baseline in Sitagliptin group and placebo group after 12week, the level of PASI score was significantly reduced ($P < 0.05$) after 12 weeks of Sitagliptin treatment. The level of FBS, HbA1c, TG, cholesterol, LDL, VLDL, TNF-α, IL-17, IL-6 and MDA were significantly reduced ($P < 0.05$) after 12 weeks of Sitagliptin treatment when compared with baseline in Sitagliptin group and placebo-treated

	group after 12 week and positively correlated (P < 0.05) with PASI score. **In contrast the level of HDL, IL10 and GSH were significantly increased** **(P < 0.05) after 12 weeks of Sitagliptin treatment in comparison to** **baseline in sitagliptin group and with that of placebo-treated group after** **12week and negatively correlated with PASI score (P < 0.05). PHS was** **significantly reduced (P < 0.05) after 12 weeks in comparison to baseline** **in Sitagliptin-treated group and with that of placebo-treated group after** **XX** **12 week. Histopathological examination also revealed a significant** **improvement (P < 0.05) in epidermal histological features and dermal** **lymphocytic infiltration with no effect on dermal blood vessels.** **Conclusion** **The present study revealed that Sitagliptin reduce PASI score without** **complete absence of psoriatic plaques via an improvement in hyperglycemia, hyperlipidemia, inflammatory mediators or cytokines and** **oxidative stress markers with confirmation of our clinical and immunological results by significant improvement in PHS.**