

## البحث السادس

(6) بحث مشترك غير مستخلص من رسالة:

عنوان البحث باللغة الانجليزية:

Effect of long - term moderate dose inhaled corticosteroids on skin thickness, total skin collagen, skin and bone collagen metabolism in some patients with asthma.

الملخص الإنجليزي:

**Background:** There are only few reports on the adverse effects of inhaled corticosteroids (ICs) on asthmatic patients' skin. Recently, some observational studies suggest the association and the positive correlation between high dose ICs and easy skin bruising, purpura and skin thinning. However no available studies discussed this problem with moderate dose ICs usage.

**Aim of the work:** To evaluated the effect of moderate dose ICs on collagen synthesis of skin and bone, skin thickness and the total amount of skin collagen. A special emphasis was placed on the evaluation of the risk of developing clinical skin atrophy.

**Patients and methods:** This study was carried out on 25 patients with asthma; 18 males and 7 females, who were diagnosed and followed up in in Bab Al Sharria university hospital and Matarya teaching hospital in chest, dermatology and clinical pathology departments between April 2005 to April 2006. All patients in this study received regular moderate dose inhaled corticosteroids for at least 9 months. We evaluated skin thickness, suction blister fluid and serum for aminoterminal propeptides of type I and III procollagens (PINP and PIIINP, respectively) as markers for skin collagen synthesis. Also, serum carboxy terminal propeptide of type I procollagen (PICP) as a

marker for bone collagen synthesis and serum cross linked carboxy terminal telopeptide of type I procollagen (ICTP) as a marker for bone degradation were also determined. Skin hydroxy proline (as a measurement for the total amount of skin collagen) was also measured.

**Results:** Inhaled corticosteroids decreased the collagen synthesis of skin and bone but skin thickness and the total amount of collagen in skin were not markedly changed after 9 months of treatment. Procollagen propeptides (PINP and PIIINP) concentrations in suction bluster fluid were markedly decreased after 9 months of ICs therapy. The serum procollagen propeptides (PINP, PIIINP, ICTP and PICP) were not significantly decreased after ICs therapy.

**Conclusion and recommendations:**Patients receiving moderate dose ICs generally need not to be monitored for skin atrophy.