## PROINFLAMMATORY CYTOKINES IN GALLSTONE INDUCED OSTEOPOROSIS

Falah Hassan Shari1, Mohammed Abbas Taher2† and Salah Kadim Ahmed3

## <u>ABSTRACT</u>

**Objective:** 

The aim of this study is to evaluate the Proinflammatory cytokines effects on cholilethiatic patients and evaluate levels of bone formation and bone resorption markers. Subjects and methods: one hundered patients with cholilethiasis to GOLD standards criteria were participated in this study. One patients with cholilethiasis, one hundered hundered apparently healthy subjects were selected to be a normal group for comparison. In addition, assessing the plasma levels of tumor necrosis factor alpha [TNF-a], interlukine 1[IL-1], interlukine6 [IL-6], C terminal Telopeptides of type I Collagen [CTX1] and carboxyterminal propeptide of type I procollagen [PICP] by EILISA Kits. Results: The results show that the levels of tuner necrosis factor alpha [TNF- $\alpha$ ],interlukin 1[IL-1], interlukine 6[IL-6], C terminal Telopeptides of type I Collagen[CTX1]and carboxyterminal propeptide of type I procollagen[PICP] elevated in serum of patients with cholilethiasis significantly as compared with control healthy groups. Conclusion: The inflammatory activity of tumor necrosis factor alpha [TNF-a], interlukine 1[IL-1] and interlukine6 [IL-6] important in develops osteoporosis in patients with cholelithiasis by its effect on bone formation and resorption markers.

## **KEYWORDS:**

Cholilethiasis, Osteoporosis, Tumor Necrosis Factor Alpha [TNF-A], Interlukine 1[IL-1], Interlukine6 [IL-6].