ABSTRACT

Introduction: Endothelial dysfunction is a central etiologic factor in the development of atherosclerosis and systemic vascular disease, which includes erectile dysfunction. YKL-40 has been suggested to be a new marker of inflammation, atherosclerosis, and endothelial dysfunction.

Aim: To estimate serum levels of YKL40, as a new serum marker of endothelial dysfunction, in patients with arteriogenic erectile dysfunction.

Patients and Methods: Hundred subjects including 50 with arteriogenic erectile dysfunction and 50 healthy as a control group were enrolled to the study. Serum YKL-40 levels were measured in patients and controls using ELISA technique.

Results: Serum YKL-40 levels was significantly elevated in arteriogenic ED patients compared with controls. Positive significant correlations were found between serum levels of YKL40 and patients’ age (r=0.588, p=0.001), duration of erectile dysfunction (r=0.673, p=0.001), BMI (r=0.598, p=0.001). The patients with hypertension had significantly elevated YKL-40 levels than those who were normotensive (164.88 ± 191.73 Vs 60.22 ± 26.44, respectively).

Conclusion: Serum levels of YKL-40 are elevated in arteriogenic ED patients denoting that endothelial dysfunction play a role in the pathogenesis of arteriogenic ED and YKL-40 as a novel marker of endothelial dysfunction could be a marker of arteriogenic erectile dysfunction.