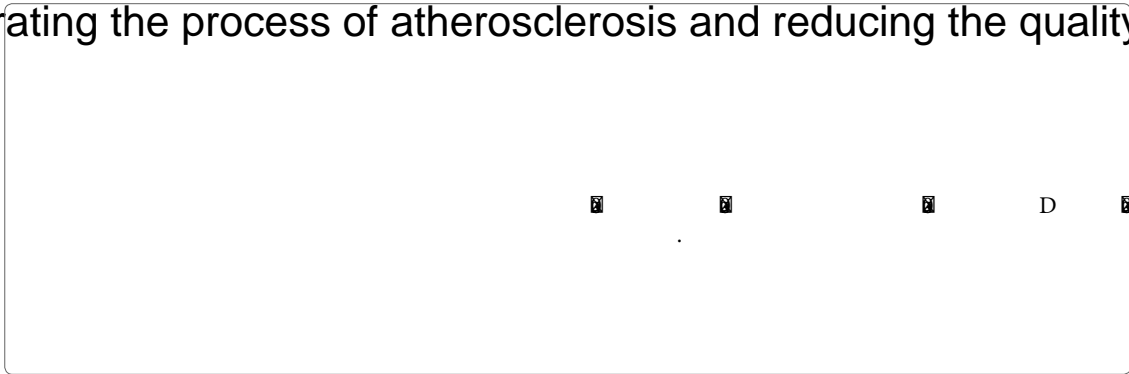


($p < 0.05$) of the concentration of malondialdehyde (MDA) was observed in group 2 patients. There was no significant difference ($p > 0.05$) between the patients in group 2 when compared to group 4. The lipid peroxidation in the blood plasma decreased ($p < 0.05$) in group 4. These results indicate that the HD process and HCV infection are accelerating the process of atherosclerosis and reducing the quality of life of the



Keywords: Hemodialysis; Hepatitis C; Atherosclerosis

Introduction

Chronic kidney disease (CKD) is a global health problem, with a prevalence of 10-15% in the general population [1,2]. Atherosclerosis is a major cause of morbidity and mortality in CKD patients [3,4]. End-stage renal disease (ESRD) patients have a significantly higher risk of cardiovascular disease compared to the general population [5]. Hemodialysis (HD) is a life-sustaining treatment for ESRD, but it is associated with several complications, including accelerated atherosclerosis [6]. Hepatitis C virus (HCV) infection is also a common cause of liver disease and is associated with an increased risk of cardiovascular disease [7]. The combination of HD and HCV infection may further accelerate the process of atherosclerosis and reduce the quality of life of patients [10,11].

Materials and Methods

The study included 40 patients with ESRD on HD. The patients were divided into four groups: Group 1 (n=10), Group 2 (n=10), Group 3 (n=10), and Group 4 (n=10). All patients had a duration of HD > 18 months. The study was approved by the local ethics committee (08981712.1.0000.5324/822124). The patients were followed up for 3-4 months.

Measurement of the total antioxidant capacity

The total antioxidant capacity (TAC) was measured using the method of Benzie and Stoll [12]. The TAC was expressed as $\mu\text{mol/L}$ of Trolox equivalents. The patients were divided into four groups: Group 1 (n=10), Group 2 (n=10), Group 3 (n=10), and Group 4 (n=10). The mean TAC values were 68.9 $\mu\text{mol/L}$ in Group 1, 68.9 $\mu\text{mol/L}$ in Group 2, 68.9 $\mu\text{mol/L}$ in Group 3, and 68.9 $\mu\text{mol/L}$ in Group 4.

Citation:

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(>0.05)



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