ABSTRACT

The diseases that arise due to overactivity of immune response of the body against body's own substances and tissues or the body attacks its own cells are referred as autoimmune diseases. FM is also considered as an autoimmune disease. FM is more common in women than in men. In the present study, the FM female patients of Pakistani community were taken to assess the autoimmune nature of FM and possible role of oxidative stress in FM patients. The blood samples were collected from FM patients and processed for further analysis. The weight, height and BMI of patients were also recorded. We investigated the link between FM and oxidative stress by measuring antioxidant enzymes including SOD, Glutathione peroxidase, Catalase in plasma or erythrocytes, and antioxidant capacity by ABTS and FRAP assay. The supplementation with antioxidants (Vitamin C, Vitamin E and black cumin seeds) was done for two months to assess their role in cure of oxidative stress in FM patients. It was concluded that FM patients have low activity of SOD and low antioxidant capacity than healthy controls. We have convincing data to suggest that supplementation with antioxidants modulate the status of FM patients towards betterment to some extent. The present study also provided a link FM and oxidative stress, so antioxidant may help in minimizing the effects of oxidative stress. The present study further demonstrated that apparently FM is not an autoimmune disease.