“A HOSPITAL-BASED CASE-CONTROL STUDY ON IRON DEFICIENCY AND ANAEMIA IN CHRONIC HEART FAILURE WITH REDUCED EJECTION FRACTION”

ABSTRACT:

Background: It has been found that patients with heart failure frequently have associated iron deficiency, which may or may not be associated with anaemia. Furthermore, it has been established that this iron deficiency is independently associated with exercise intolerance, poorer quality of life, and increased mortality. Correction of iron deficiency has been found to have beneficial effects.

Objectives: The purpose of this study is to estimate the burden of iron deficiency and anaemia in patients who have heart failure with reduced ejection fraction.

Methods: 50 patients with heart failure with reduced ejection fraction (EF <40%) were compared with 50 age-matched controls who had no evidence of heart failure on history and clinical examination. All patients were investigated to identify iron deficiency and anaemia.

Results: The prevalence of iron deficiency was 72% among cases and 36% among controls (P-value <0.05). The prevalence of anaemia was 54% among cases and 28% among controls (P-value <0.05). Patients with heart failure were 4.57 times more likely to be iron deficient, and 3.01 times more likely to be anaemic, compared with normal controls.

Conclusions: This study showed that there is a large burden of iron deficiency and anaemia in patients with heart failure with reduced ejection fraction. In view of the randomised controlled trials that have demonstrated benefit in correction of this iron deficiency, it may be prudent to assess and use iron status as a therapeutic target in all patients with heart failure.

Keywords: Heart failure, Anaemia, Iron Deficiency, Ferritin