

**ABSTRACT****The Effect of Vitamin C Addition on Fe + Folate Supplementation Related Ferritin and Hemoglobin Levels in Pregnant Women Anemia (Studied in Sawahan, Surabaya)**

Iron deficiency anemia is the most common disorders during pregnancy. Vitamin C and iron are expected to overcome anemia. The study was conducted to determine the effect of vitamin C addition on Fe + folate supplementation related to ferritin and hemoglobin levels. This research was an experimental study with *Pre Test-Post Test Control Group Design*. The treatment group were given vitamin C (50 mg) and Fe + folate (60 mg + 200 mg), a control group were given Fe + Folate (60 mg + 200 mg). Supplementation was given over 12 weeks and consumed every day. Ferritin and hemoglobin samples were collected 2 times at before and after treatment. Ferritin level was determined with *Enzyme-Linked Immunosorbent Assays* (ELISA) at Klinika laboratory Surabaya. Haemoglobin were analyzed by standard *Cyanmethemoglobin* method at Pakis Health Centre laboratory. Data were analyzed using t-test. The results showed significant differences of ferritin levels after treatment between the treatment group and the control group ( $p = 0.010$ ) and nothing difference hemoglobin levels before and after treatment in the treatment group ( $p = 0.018$ ). There was not only differences hemoglobin levels before and after treatment in the control group ( $p = 0.001$ ), but also nothing significant difference after treatment and the control group ( $p = 0.979$ ). Conclusion, there is a significant effect of vitamin C addition on Fe + folate supplementation for increasing levels of ferritin but no significant effect on hemoglobin levels.

Keywords : Vitamin C, Fe + Folate, Anemia, Pregnant Women