

SERUM FERRITIN AND IRON LEVELS IN ADOLESCENCE OBESITY

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ABSTRACT

Introduction: It has been reported that obese children have a higher incidence of high ferritin and transferrin saturation than non obese children. The excessive iron stores can cause type 2 diabetes among patients with hemochromatosis, and this event could also occurred in obesity. **Objectives:** This study sought to know the level of serum ferritin and iron (ferrum) in adolescent obesity which could lead to initiate insulin resistance. **Methods:** Fifty five adolescence women (3 obese, 22 overweight, and 30 normal weight) involved in this study. The obesity was determined by body mass index (BMI), which are obese if $BMI > 30 \text{ kg/m}^2$; overweight if $BMI 25-30 \text{ kg/m}^2$; and normal weight if $BMI < 25 \text{ kg/m}^2$. The serum level of iron and ferritin assessed by kit analyzer with immunochemiluminescent methods, after drawing 2 ml blood from cubital vein. **Conclusions:** We concluded that serum ferritin and iron (ferrum) higher in obese group than overweight and normal weight group, although it was not statistically significance (Kruskall Wallis test $p > 0.05$). It was appeared that serum ferritin and iron tended to elevated following the raising of body mass index (BMI).

Keywords : obesity, serum ferritin, serum iron (ferrum)