

## ORIGINAL ARTICLE

**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 kg/m<sup>2</sup>; overweight if BMI 25-30 kg/m<sup>2</sup>; and normal weight if BMI < 25 kg/m<sup>2</sup>. 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)