

Trs: ISTERH 2013 #7001

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Date: Friday, July 12, 2013 at 07:51 AM GMT+7

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**Dikirim:** Kamis, 11 Juli 2013 13:02

**Judul:** Fw: ISTERH 2013 #7001

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Title and Name : Dr. Widati Fatmaningrum

Title of Abstract : Effect of Iron-Folic Acid-Zinc Supplementation on Insulin-Like Growth Factor-1 Level of Anemic Pregnant Women

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## **Effect of Iron-Folic Acid-Zinc Supplementation on Insulin-Like Growth Factor-1 Level of Anemic Pregnant Women**

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### **Abstract**

Anemia in pregnancy is a public health problem due to its high prevalence. The impact of anemia on the fetus presents as growth disorder. Zinc is micronutrient that is implicated with anemia and growth, which is believed to have capability to improve anemic status of pregnant women and to increase the growth of the fetus. The aim of this study is to clarify the mechanism of anemia status improvement and fetal growth increase after iron-folic acid-zinc (60 mg, 0.25 mg and 50 mg) supplementations in pregnant women with anemia by proving the increase of Hb and Insulin-like Growth Factor-1 (IGF-1) levels. This was a quasi experimental study, applying pre test and post test non randomized control group design. Objects were divided into control and treatment groups. Control comprised pregnant women with anemia who were given with iron-folic acid supplementations (n=18), while pregnant women in treatment group were given with iron-folic acid-zinc (n=18). There were difference between the outcome of iron-folic acid and iron-folic acid-zinc supplementations. The difference between both groups was in the variable of IGF-1 ( $p < 0,05$ ). The results suggest that iron-folic acid-zinc supplementations did not improve anemic status and did not increase fetal growth, while the iron-folic acid supplementations did improve the anemic status and increase fetal growth through the mechanism of Hb and IGF-1 increase. Hb increase contributes to the increase of IGF-I as much as 36.5%.

Keywords: Hb, IGF-1, iron-folic acid-zinc, anemic, pregnant women