ABSTRACT

Bioavailability and acceptability of heme-iron obtained from swine hemoglobin (Hb) included in the chocolate-flavored filling of biscuits was assessed in adolescent girls. The supplemented groups received biscuits fortified with 9.5 mg of iron per day for 13 weeks (65 days) of either iron sulfate (IS, \( n = 64 \)) or heme-iron concentrate (HIC, \( n = 59 \)). The control (C) group consisted of 70 teenagers with the highest baseline Hb concentrations. The iron-supplemented biscuits were well accepted by the adolescents. Blood chemistry analyses were performed at baseline and the 7th and 13th weeks. The Hb levels in the HIC group increased (\( p < 0.05 \)) during the study period and did not differ significantly between the HIC and the C groups. However, minimal improvement of Hb level for the IS group was observed during the entire study period and Hb values were lower (\( p < 0.05 \)) at 13 weeks compared to the other two groups.

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