



Comment on “Improvement of Body Composition and Quality of Life Following Intra-gastric Balloon”

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Dear Editor,

We read with great interest the article by Reimão and colleagues [1] who evaluate the effects of intra-gastric balloon (IGB) in overweight or class I obese patients, by analyzing body composition and quality of life. They concluded that IGB induces not only weight loss but also changes in body composition through the reduction of body fat mass and fat area [1]. However, we would like to take readers' attention on some methodological issues.

The first issue is that body composition analysis was determined by bioelectrical impedance model InBody720[®] (InBody, Cerritos, CA, USA) in this study. Bioimpedance analysis (BIA) measurements strongly effected by body water changes, because BIA relies on measurement of electrical energy conduction capacity of hydrated tissues of body [2]. So, pretest protocol required to avoid potential effects of total body water changes. Emptying bladder immediately before the test, no alcohol intake and food or beverage intake for 4 h, performing the test at the same time period of the day, and avoiding diuretics and other medications which might affect water distribution in the body are some of the important aspects of the pretest protocol [2]. However, there is no clar-

ification about such medications and standardization pretest protocol in the article by Reimão and colleagues.

Second, Reimão and colleagues used the InBody720[®] (InBody, Cerritos, CA, USA) for body composition analyses. Validation study of InBody720[®] was performed by dual-energy X-ray absorptiometry [3]. To the best of our knowledge, magnetic resonance imaging, computed tomography, and a four-compartment model are currently accepted gold standard tools to measure body composition, whereas DXA is not. Also, to the best of our knowledge, validity of InBody720[®] has not been tested in study population against gold standard techniques. Validation studies that are performed by non-gold standard instrument for body composition are open to misclassifications related to estimation errors of the references.

We believe that identifying these points might help to generate current results in daily practice.

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Compliance with Ethical Standards

Conflict of Interest The authors declare that they have no conflict of interest.

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