Reviewer's report

Title: Obesity, metabolic syndrome, impaired fasting glucose and microvascular dysfunction: a principal component analysis approach

Version: 2 Date: 17 March 2012

Reviewer: Sibel S.G Guldiken

Reviewer's report:

In the present study, the authors aimed to investigate the clinical, laboratory and anthropometric measurements that affect the microvascular circulation. As a result of the study, the adipocyte levels of 189 female subjects were found to be related with microvascular dysfunction. The study had been planned to evaluate retrospective data with different statistical values. When the literature was reviewed, it was seen that the authors had similar past studies. These studies had shown that

1- the increased BMI caused microvascular dysfunction in metabolic syndrome (Kraemer-Aguiar LG, et al. Metabolism. 2008 Dec;57(12):1740-6.),
2- the BMI in women was associated with the microcirculation (Kraemer-Aguiar LG, et al. Int J Obes (Lond). 2010 Jan;34(1):111-7.),
3- the waist circumference was associated with the microvascular circulation (Kraemer-Aguiar LG, et al. Microvasc Res. 2010 Dec;80(3):427-32.).

In this respect, the study does not bring any new insight to the literature. So, I am of the opinion that the manuscript has no priority to be published in your journal.

Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.