

Comment on Al-Eisa E, et al. (J Pak Med Assoc. 67: 499-507, 2017)

Effects of supervised aerobic training on the levels of anti-Mullerian hormone and adiposity measures in women with normo-ovulatory and polycystic ovary syndrome

Ben W. Mol

Madam, I hope this email finds you well. I am writing to point out my concerns on a paper published in J Pak Med Assoc. Reference: Al-Eisa E, Gabr SA, Alghadir AH. Effects of supervised aerobic training on the levels of anti-Mullerian hormone and adiposity measures in women with normo-ovulatory and polycystic ovary syndrome. J Pak Med Assoc. 2017 Apr;67(4):499-507. PMID: 28420905.

This paper reports on a cohort study of 90 age-matched patients: Included were 30 healthy controls (group A), 30 patients with PCOS (group B), and 30 obese women (group C). Participants underwent 45 minutes supervised treadmill walking 3 times per week for 12 weeks, and change in weight, reported clinical symptoms, serum hormones and fasting glucose were compared between groups.

Concern 1: This study has only 3 authors, despite the patients undergoing a 3x weekly supervised exercise

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programme for 12 weeks. This seems likely to require a larger author group.

Concern 2: Over 12 weeks of the aerobic exercise programme, not one of the 90 enrolled patients is reported to have dropped out.

Concern 3: Despite having a lower mean reduction in body weight than Group B, Group C had a much greater reduction in waist circumference. I fail to see how this is possible, although it may be a typo.

Concern 4: This study reports an unfeasibly large treatment effect in 12 weeks of light aerobic exercise without dietary intervention. Changes in BMI, body weight, waist circumference and AMH for the 3 groups over the study period with p-values calculated with the independent samples t-test. 8/12 (67%) of these values are statistically significant ($p < 0.01$). A similar study from 2011 (Fertil Steril. 2011 Jun 30;95(8):2696-9. doi: 10.1016/j.fertnstert.2011.01.137.) reported no change in BW over a 16-week period of aerobic intervention.