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Dopaminergic Agonists Improve Obesity by Virtue of its Action on Lipid Profiles and Leptin

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Background: The efficacy of a non-prescription drug to support weight loss programs has yet to be compared. This clinical trial investigates the comparability of the lipase inhibitor orlistat and the dopaminergic agonist bromocriptine.

Methods: Seventy five obese females were randomized into three groups according to treatment received; obese control group (OC; n = 25), orlistat group (OR, n = 25, 120 mg capsules, three times a day) and bromocriptine group (OB, n= 25, 20 mg tablet, once a day). This prospective observational study was conducted with normocaloric diet for eight weeks. Serum concentration of leptin and lipid profile were measured, along with body Mass Index (BMI) at baseline and after the study.

Results: Bromocriptine treatment (OB) caused an increase in serum leptin concentration compared to OC and OR groups (ANOVA, p < 0.01). Beneficial changes in anthropometric and BMI values were observed following orlistat and bromocriptine administration with the greatest advantage seen in the OB group.

Conclusions: Beneficial effects were observed on weight loss, and body composition in all examined groups, with the greatest advantage on serum leptin being associated with the bromocriptine treatment. We find these strategies more promising for the treatment of obesity and its related complications in obese women.

Keywords: Obesity, Bromocriptine, Orlistat, Weight loss, Leptin

Biography:

Dr. Ghada Mohammad has completed her Ph.D. in Pharmacy (Biochemistry), Tanta University, Egypt in the year September 2015, Master Degree in Biochemistry, Tanta University, Faculty of Pharmacy, Egypt, B.Sc. Degree in Pharm. Sciences (Excellent Honor) Tanta University, Faculty of Pharmacy, Egypt. Currently she is a Lecturer in Biochemistry Department at Tanta University, Faculty of Pharmacy, Egypt. She has a Membership in Professional Associations (1) Egyptian Syndicate of Pharmacists, (2) HYPERLINK "https://www.facebook.com/CECR.TantaUN/?ref=page_internal" Egyptian Association for Cancer Research (EACR), (3) Egyptian Society of Clinical Chemistry.