

## 论著

### 齐拉西酮与奥氮平对首发精神分裂症患者糖脂代谢的影响

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#### 摘要:

目的: 比较齐拉西酮和奥氮平对首发精神分裂症患者糖脂代谢的影响。方法: 260名患者随机分为齐拉西酮组和奥氮平组,治疗观察6周。测量患者基线、第2周末、第4周末和第6周末时体质量,并计算体质量指数。基线和治疗终点时采集空腹血糖、空腹胰岛素、高密度脂蛋白、胆固醇和三酰甘油,并计算胰岛素抵抗指数,部分患者检测了治疗前后的低密度脂蛋白。结果: 共有245名患者完成研究,齐拉西酮组121例,奥氮平组124例。齐拉西酮剂量137.5 mg/d,奥氮平剂量19.5 mg/d。治疗6周末,奥氮平组[(4.55±3.37) kg]的体质量增加显著高于齐拉西酮组[(-0.83±2.05) kg,  $P<0.001$ ]。与基线比较,治疗6周末奥氮平组空腹血糖、空腹胰岛素、高密度脂蛋白、总胆固醇、三酰甘油、低密度脂蛋白及胰岛素抵抗指数明显升高(均 $P<0.001$ );而齐拉西酮组空腹血糖明显降低,高密度脂蛋白和三酰甘油明显升高(均 $P<0.05$ );治疗前后空腹血糖、空腹胰岛素、总胆固醇、三酰甘油、低密度脂蛋白及胰岛素抵抗指数的变化值在2组间的差异均具有统计学意义(均 $P<0.001$ )。结论: 齐拉西酮在短期内对未用药的首发精神分裂症患者的糖脂代谢影响较小,而奥氮平会显著增加体质量和引起糖脂代谢紊乱,从而增加各类并发症的风险。因此,在临床用药选择时需慎重考虑药物可能存在的不良反应。

关键词: 齐拉西酮 奥氮平 精神分裂症 体质量 糖脂代谢

### Effects of ziprasidone and olanzapine on glucose and lipid metabolism in first-episode schizophrenia

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#### Abstract:

Objective: To investigate the effect of ziprasidone and olanzapine on glucose and lipid metabolism in first-episode schizophrenia.

Methods: A total of 260 schizophrenics were assigned randomly to receive ziprasidone or olanzapine for 6 weeks. The weight was measured at baseline, week 2, 4 and 6. Fasting blood glucose (FBS), fasting insulin, high-density lipoprotein (HDL), total-cholesterol (TC) and triglycerides (TG) were measured at baseline and the end of 6-week treatment. Low-density lipoprotein (LDL) was measured in some patients at baseline and the end of 6-week treatment. Body mass index (BMI) and insulin resistance index (IRI) were counted.

Results: A total of 245 patients completed the trial, including 121 ziprasidone patients and 124 olanzapine patients. The average dose was 137.5 mg/d for ziprasidone and 19.5 mg/d for olanzapine. Patients treated with olanzapine had higher weight gain than those treated with ziprasidone [(4.55±3.37) kg vs (-0.83±2.05) kg,  $P<0.001$ ]. After the treatment, FBS, fasting insulin, HDL, TC, TG, LDL and IRI levels were significantly increased in the olanzapine group (all  $P$  values $<0.001$ ). However, in the ziprasidone group, FBS decreased significantly and HDL and TG levels increased significantly after the 6-week treatment (all  $P$  values $<0.05$ ). The mean changes of FBS, fasting insulin, TC, TG, LDL and IRI were significantly different in the two groups (all  $P$  values $<0.001$ ).

Conclusion: Ziprasidone has less glucose and lipid metabolic effect for first-episode schizophrenia patients in short-term treatment. However, olanzapine induces weight gain and dysfunction of glucose and lipid metabolism significantly, which is associated with increased risk of complications. When the doctors choose antipsychotics in the clinic, they should consider the side effects of the medication.

Keywords: ziprasidone olanzapine schizophrenia weight metabolism

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#### 参考文献:

1. Leucht S, Leucht S, Leucht S, et al. Relapse prevention in schizophrenia with new-generation antipsychotics: a systematic review and exploratory meta-analysis of randomized, controlled trials [J]. Am J Psychiatry, 2003, 160(7): 1209-1222.
2. Allison DB, Mentore JL, Heo M, et al. Antipsychotic-induced weight gain: a comprehensive research synthesis [J]. Am J Psychiatry, 1999, 156(11): 1686-1696.
3. Simpson GM, Glick ID, Weiden PJ, et al. Randomized, controlled, double-blind multicenter comparison of the efficacy and tolerability of ziprasidone and olanzapine in acutely ill inpatients with schizophrenia or schizoaffective disorder [J]. Am J Psychiatry, 2004, 161(10): 1837-1847.
4. Brown RR, Estoup MW. Comparison of the metabolic effects observed in patients treated with ziprasidone versus olanzapine [J]. Int Clin Psychopharmacol, 2005, 20(2): 105-112.
5. Breier A, Berg PH, Thakore JH, et al. Olanzapine versus ziprasidone: results of a 28-week double-blind study in patients with schizophrenia [J]. Am J Psychiatry, 2005,162(10): 1879-1887.
6. Simpson GM, Weiden P, Pigott T, et al. Six-month, blinded, multicenter continuation study of ziprasidone versus olanzapine in schizophrenia [J]. Am J Psychiatry, 2005, 162(8): 1535-1538.
7. Grootens KP, Van Veelen NM, Peuskens J, et al. Ziprasidone vs Olanzapine in recent-onset schizophrenia and schizoaffective disorder: results of an 8-week double-blind randomized controlled trial [J]. Schizophr Bull, 2011, 37(2): 352-361.
8. Komossa K, Rummel-Kluge C, Hunger H, et al. Olanzapine versus other atypical antipsychotics for schizophrenia [J]. Cochrane Database Syst Rev, 2010(3): CD006654.
9. Komossa K, Rummel-Kluge C, Hunger H, et al. Ziprasidone versus other atypical antipsychotics for schizophrenia [J]. Cochrane Database Syst Rev, 2009(4): CD006627.
10. Rummel-Kluge C, Komossa K, Schwarz S, et al. Head-to-head comparisons of metabolic side effects of second generation antipsychotics in the treatment of schizophrenia: a systematic review and meta-analysis [J]. Schizophr Res, 2010, 123(2/3): 225-233.
11. Cromwell WC, Otvos JD, Keyes MJ, et al. LDL Particle number and risk of future cardiovascular disease in the framingham offspring study-implications for LDL management [J]. J Clin Lipidol, 2007, 1(6): 583-592.
12. Ip S, Lichtenstein AH, Chung M, et al. Systematic review: association of low-density lipoprotein subfractions with cardiovascular outcomes [J]. Ann Intern Med, 2009, 150(7): 474-484.
13. Preiss D, Sattar N. Lipids, lipid modifying agents and cardiovascular risk: a review of the evidence [J]. Clin Endocrinol (Oxf), 2009, 70(6): 815-828.
14. Hoffmann VP, Case M, Stauffer VL, et al. Predictive value of early changes in triglycerides and weight for longer-term changes in metabolic measures during olanzapine, ziprasidone or aripiprazole treatment for schizophrenia and schizoaffective disorder post hoc analyses of 3 randomized, controlled clinical trials [J]. J Clin Psychopharmacol, 2010, 30(6): 656-660.

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2. 肖松舒 薛敏 邓新粮 万亚军.

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[J]. 中南大学学报(医学版), 2006, 31(05): 786-791

3. 李乐华, 吴仁容, 赵靖平.脂联素基因+45T/G 和+276G/T多态性与抗精神病药物所致体质量增加[J]. 中南大学学报(医学版), 2009,34(08): 693-696
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[J]. 中南大学学报(医学版), 2009,34(09): 850-855

5. 张红, 刘玮, 叶爱玲, 赵勤, 罗湘杭, 廖二元. 绝经后女性血清睾酮与瘦体质量、体脂和骨密度的关系

[J]. 中南大学学报(医学版), 2009,34(10): 998-1002

6. 王育红<sup>1</sup>, 李文强<sup>2</sup>, 黄照<sup>1</sup>, 石玉中<sup>2</sup>, 王绪轶<sup>2</sup>, 黄劲松<sup>1</sup>, 周旭辉<sup>1</sup>, 谌红献<sup>1</sup>, 郝伟<sup>1</sup>. 中国首次发作的精神分裂症患者5-HT<sub>2A</sub>受体

基因多态性与阴性症状的关系[J]. 中南大学学报(医学版), 2008,33(04): 293-298

7. 牟晓冬<sup>1</sup>, 张志珺<sup>1</sup>, 张向荣<sup>2</sup>, 史家波<sup>2</sup>, 孙静<sup>2</sup>. 瘦素基因启动子区-2548G/A功能多态性与抗精神病药源性肥胖的核心家系关联研究[J]. 中南大学学报(医学版), 2008,33(04): 316-320

8. 邵平, 赵靖平, 陈晋东, 吴仁容, 何益群. 5-羟色胺<sub>2C</sub>受体基因-759C/T和-697G/C多态性与抗精神病药物所致体质量增加的关联[J]. 中南大学学报(医学版), 2008,33(04): 312-315

9. 赵志梅<sup>1</sup>, 杨琳<sup>2</sup>, 崔斌<sup>3</sup>. 新生儿呼吸窘迫综合征X线表现与临床分析

[J]. 中南大学学报(医学版), 2007,32(06): 1069-1074

10. 周炳<sup>1</sup>, 谭长连<sup>1</sup>, 唐劲松<sup>2</sup>, 陈晓岗<sup>2</sup>. 早发性精神分裂症脑功能连接的功能磁共振[J]. 中南大学学报(医学版), 2010,35(1): 17-24

11. 蒋少艾<sup>1</sup>, 周炳<sup>2</sup>, 廖艳辉<sup>1</sup>, 刘卫青<sup>1</sup>, 谭长连<sup>2</sup>, 陈晓岗<sup>1</sup>, 唐劲松<sup>1</sup>. 基于fMRI的早发精神分裂症患者静息态

脑活动的局部一致性初步研究[J]. 中南大学学报(医学版), 2010,35(9): 947-

12. 刘勇, 唐亚梅, 蒲唯丹, 张向晖, 赵靖平. MK-801诱导的精神分裂症发育模型大鼠脑组织DA, DOPAC, Glu和GABA浓度的变化[J]. 中南大学学报(医学版), 2011,36(8): 712-719

13. 吴仁容, 赵靖平, 邵平, 欧建君, 常麦会. 抗精神病药物所致体质量增加的遗传易感基因[J]. 中南大学学报(医学版), 2011,36(8): 720-723

14. 国效峰, 张展筹, 朱薇薇, 连楠, 吕海龙, 赵靖平. 伴与不伴糖尿病的精神分裂症认知功能的比较[J]. 中南大学学报(医学版), 2011,36(8): 724-727

15. 蔡溢, 匡卫平, 郭田生, 黄红星, 邬志美, 周彬, 朱勇, 陈小峰, 李波, 谌红献. 脑立体定向术治疗难治性精神分裂症的远期疗效[J]. 中南大学学报(医学版), 2011,36(9): 876-880