

**A PROSPECTIVE RANDOMIZED CONTROLLED TRIAL OF PALIPERIDONE ER VERSUS ORAL OLANZAPINE IN PATIENTS WITH SCHIZOPHRENIA**

**A. Schreiner**<sup>1</sup>, P. Korcsog<sup>2</sup>, D.J.H. Niehaus<sup>3</sup>, K. Aadamsoo<sup>4</sup>, A. Uecok<sup>5</sup>, M. Franco<sup>6</sup>, P. Theodoropoulou<sup>7</sup>, R. Salinas<sup>8</sup>, P. Bergmans<sup>9</sup>, D. Hoeben<sup>10</sup>, C. Tessier<sup>11</sup>

<sup>1</sup>EMEA Medical Affairs, Janssen-Cilag, Neuss, Germany, <sup>2</sup>Department of Psychiatry, General Hospital Rimavska Sotoba, Rimavska Sobota, Slovak Republic, <sup>3</sup>Flexinvest Fourteen Research Centre, Capetown, South Africa, <sup>4</sup>Department of Psychiatry, North Estonian Regional Hospital, Tallin, Estonia, <sup>5</sup>Department of Psychiatry, Istanbul Faculty of Medicine, Istanbul, Turkey, <sup>6</sup>Department of Psychiatry, Zamora Hospital, Zamora, Spain, <sup>7</sup>Department of Psychiatry, Sismanoglio Hospital, Maroussi-Athens, Greece, <sup>8</sup>Instituto para la Prevención de las Enfermedades Mentales, Buenos Aires, Argentina, <sup>9</sup>Clinical Research Info Group, Janssen Cilag EMEA, Tilburg, The Netherlands, <sup>10</sup>EMEA Medical Affairs, Janssen Pharmaceutica N.V., Beerse, Belgium, <sup>11</sup>EMEA Medical Affairs, Janssen Cilag France, Paris, France

**Objective:** To compare the longer-term metabolic effects and efficacy of paliperidone ER and olanzapine in patients with schizophrenia.

**Methods:** Prospective 6-month randomized study evaluating flexible doses of paliperidone ER and oral olanzapine (OLA). Primary endpoint was the change in triglyceride to high-density lipoprotein (TG:HDL) ratio, a sensitive measure of insulin resistance. Additional endpoints were the Positive and Negative Syndrome Scale (PANSS), body weight, lipids, homeostasis model of insulin resistance (HOMA-IR) and adverse events (AEs).

**Results:** 239 patients were randomized to paliperidone ER, 220 to olanzapine. Demographics and baseline characteristics were comparable. Mean doses were 6.9±1.3 mg/day for paliperidone ER and 11.6±2.3 mg/day for olanzapine. The TG:HDL ratio for olanzapine significantly worsened from baseline to endpoint (0.42±1.19;p< 0.0001); it remained unchanged for paliperidone ER (-0.08±1.10;p=0.4718; between-group difference p< 0.0001). PANSS total scores at endpoint significantly improved (olanzapine -16.6±15.0; paliperidone ER -13.5±15.9; both p< 0.0001 vs. baseline); the between-group difference met prespecified non-inferiority criteria. Endpoint weight change was 3.8±5.9kg for olanzapine and 1.2±4.6kg for paliperidone ER (p< 0.0001). Insulin resistance in HOMA-IR did not change with paliperidone ER (p=0.1507) but significantly worsened with olanzapine (p=0.003 vs. baseline). The most frequently reported treatment-emergent AEs (>=5%) were weight increase (OLA 18.2%;Pali ER 9.6%), insomnia (OLA 1.4%;Pali ER 9.6%), somnolence (OLA 9.5%;Pali ER 3.3%) and schizophrenia (OLA 1.8%;Pali ER 5.0%).

**Conclusion:** In this randomized controlled study paliperidone ER was superior to olanzapine with regards to insulin resistance, weight gain, lipid changes and other relevant metabolic endpoints. Efficacy was non-inferior between paliperidone ER and olanzapine.