

Effects of metformin on insulin resistance in obese and hyperandrogenic women

Efecto de la metformina sobre la resistencia insulínica en mujeres obesas y obesas hiperandrogénicas

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Background: Metformin is a biguanide often used in obese diabetics that improves tissue sensitivity to insulin. **Aim:** To assess the effects of metformin on tissue insulin sensitivity in obese and hyperandrogenic women. **Patients and methods:** Eight obese and eight obese and hyperandrogenic women received metformin 850 mg orally during 12 weeks. Before and at the end of the treatment period, an insulin tolerance test to measure insulin sensitivity was performed and blood was drawn to measure sex hormone binding globulin (SHBG), dehydroepiandrosterone sulphate (DHEAS), testosterone, triglycerides, total and HDL cholesterol. The free androgen index was calculated for each sample. **Results:** After metformin treatment, the insulin sensitivity index improved from 0.38 (0.05-0.5) to 0.43 (0.25-0.59) in obese women and from 0.2 (0-0.36) to 0.3 (0.06-0.4) in obese and hyperandrogenic women. SHBG increased and total cholesterol and triglycerides decreased significantly in both groups. No other signif