Effect of N-acetyl-cysteine after ovarian drilling in clomiphene citrate-resistant PCOS women: a pilot study.

Nasr A

The aim of this randomized double-blind placebo-controlled pilot study was to evaluate N-acetyl-cysteine (NAC) as an adjunctive therapy following unilateral laparoscopic ovarian drilling (LOD) for clomiphene citrate-resistant women with polycystic ovary syndrome (PCOS). A total of 60 patients with clomiphene citrate-resistant PCOS who underwent unilateral LOD were assigned randomly to receive either NAC 1.2 g/d (group A = 30) or placebo (group B = 30) for 5 days starting at day 3 of the cycle for 12 consecutive cycles. The primary outcome was pregnancy rate; secondary outcomes were ovulation rates, endometrial thickness and pregnancy outcome. Baseline clinical, endocrine, and sonographic characteristics were similar in the two groups. A significant increase in both ovulation and pregnancy rates was observed in the NAC group, compared with placebo [87% versus 67% (RR 1.3; 95% CI 1.2–2.7) and 77% versus 57% (RR 1.4; 95% CI 1.1–2.7), respectively, P < 0.01]. Moreover, miscarriage rates were significantly lower and live birth rates were significantly higher in the NAC group [8.7% versus 23.5% (RR 0.4; 95% CI 0.1–3.7) and 67% versus 40% (RR 1.7; 95% CI 0.3–3.5), respectively, P < 0.01]. In conclusion, NAC is a novel adjuvant therapy after unilateral LOD which might help improve overall reproductive outcome.