

Effects of electro-acupuncture on anovulation in women with polycystic ovary syndrome.

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BACKGROUND: The present study was designed to evaluate if electro-acupuncture (EA) could affect oligo-/anovulation and related endocrine and neuroendocrine parameters in women with polycystic ovary syndrome (PCOS). **METHODS:** Twenty-four women (between the ages of 24 and 40 years) with PCOS and oligo-/amenorrhea were included in this non-randomized, longitudinal, prospective study. The study period was defined as the period extending from 3 months before the first EA treatment, to 3 months after the last EA treatment (10-14 treatments), in total 8-9 months. The menstrual and ovulation patterns were confirmed by recording of vaginal bleedings and by daily registrations of the basal body temperature (BBT). Blood samples were collected within a week before the first EA, within a week after the last EA and 3 months after EA.

RESULTS: Nine women (38%) experienced a good effect. They displayed a mean of 0.66 ovulations/woman and month in the period during and after the EA period compared to a mean of 0.15 before the EA period ($p=0.004$). Before EA, women with a good effect had a significantly lower body-mass index (BMI) ($p<0.001$), waist-to-hip circumference ratio (WHR) ($p=0.0058$), serum testosterone concentration ($p=0.0098$), serum testosterone/sex hormone binding globulin (SHBG) ratio ($p=0.011$) and serum basal insulin concentration ($p=0.0054$), and a significantly higher concentration of serum SHBG ($p=0.040$) than did those women with no effect. **CONCLUSION:** Repeated EA treatments induce regular ovulations in more than one third of the women with PCOS. The group of women with good effect had a less androgenic hormonal profile before treatment and a less pronounced metabolic disturbance compared with the group with no effect. For this selected group EA offers an alternative to pharmacological ovulation induction.