REPRODUCTIVE OUTCOME AFTER LAPAROSCOPIC EXCISION AND ELECTROCOAGULATION OF MILD ENDOMETRIOSIS.
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Objectives: Laparoscopic treatment of minimal and mild endometriosis is usually done by laser or electrocoagulation. Whether surgical excision is associated with similar results is unknown. In the present study, we compared the reproductive performance of infertile women with mild endometriosis who were treated laparoscopically by surgical excision and by electrocoagulation.

Design: Retrospective study.

Materials and Methods: 101 infertile women who underwent laparoscopic treatment of mild endometriosis were studied. 48 women were treated with electrosurgery (historical control group), and 53 women were treated with excision. Reproductive performance of these two groups of women was evaluated with Life Table Analysis and Mantel-Cox test.

Results: Six women in the electrosurgery group and 10 women in the excision group were excluded from the analysis. Of the total 24 pregnancies (pregnancy rate: 57.1%) in the electrosurgery group, there were three spontaneous abortion (12.5%) and one ectopic pregnancy (4.2%). The total pregnancy rate in the excision group was 53.5% and the abortion and ectopic pregnancy rates were 17.4% (4/23) and 8.7% (2/23). The median surgery-conception interval in the electrosurgery group was 10.7 months and in the excision group was 13.3 months. There was no significant difference in the probability of conception between the two groups of women (Mantel-Cox test: z = 2.04, P = 0.04). Using Cox-proportional hazards model, the effect of age and duration of infertility were evaluated. Age and duration of infertility were not associated with increase pregnancy rate.

Conclusions: There is no difference in the reproductive performance of infertile women with mild endometriosis treated laparoscopically by surgical excision and by electrocoagulation. The difference between these two modalities in women with endometriosis-related pelvic pain remains to be seen.

INCREASED OVARIAN STIMULATION OF RATS INFUSED WITH IGF-I ANALOGUE, LONG ACTING-INSULIN-LIKE GROWTH FACTOR-I (LR²-IGF-I).
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The objective was to obtain direct evidence for a role of IGF-I in enhancing follicle development and ovulation rate in vivo. In experiment 1, prepubertal rats of Sprague-Dawley (SD), Long-Evans (LE) and Dark Agouti (DA) strains received sc infusion of either LR²-IGF-I (1mg/kg/d) or saline from 24 d of age until sacrificed on d 29, and received either eCG (15 IU, sc) or no eCG on d 27. Ovarian weights were recorded following sacrifice. In experiment 2, mature SD rats received the same treatments as in experiment 1 and also hCG (10 IU, ip) 56 h after eCG, and were sacrificed the following morning. Ovulated ova were collected from oviductal ampullae, and cumulus cells per oocyte-cumulus complex (OCC) counted. The experiments were replicated twice with 10-20 rats each time. In experiment 1, in SD rats, LR²-IGF-I did not affect (P>0.05) ovarian weight (23.6±0.6 vs 20.2±1.8 mg in controls; mean±SEM), eCG and LR²-IGF-I plus eCG increased (P<0.05) ovarian weight (43.2±8.1 and 56.8±10.8 mg, respectively). Ovarian weight was greater (P<0.05) in LR²-IGF-I plus eCG treated DA rats than in eCG treated DA rats (59.2±1.7 vs 47.4±1.8 mg), and in LR²-IGF-I plus eCG treated LE rats than in eCG treated LE rats (99.6±7.6 vs 52.5±13.0 mg). In experiment 2, LR²-IGF-I did not affect (P>0.05) ovulation rate (1.3±3.5 vs 1.4±3.5 in controls), eCG and LR²-IGF-I plus eCG increased (P<0.05) ovulation rate, (22.1±3.5 and 35.4±3.7, respectively). Ovulation rate was also greater (P<0.05) in LR²-IGF-I plus eCG rats than in eCG rats. LR²-IGF-I, eCG, and LR²-IGF-I plus eCG decreased (P<0.05) the number of cumulus cells/OCC (8,370±2,560, 5,810±1,230, and 5,000±1,230, respectively, vs 16,342±1,980 in controls). The results provide conclusive evidence in vivo for a physiological role of IGF-I in influencing follicle growth, apparently acting by enhancing the follicular response to FSH. The increased ovarian weight and ovulation rate by LR²-IGF-I may be the result of stimulation of small follicles. The decreased cumulus cell numbers in LR²-IGF-I rats may be due to a decreased rate of 3H-thymidine incorporation.