

rats caused a decrease in ovarian PACAPR expression. In contrast, treatment with human chorionic gonadotropin (hCG) at 2 days after eCG treatment stimulated ovarian PACAPR mRNA within 6~9 h in granulosa cells of preovulatory follicles. Treatment with luteinizing hormone (LH) in cultured preovulatory follicles *in vitro* further confirmed the time- and dose-dependent stimulation of PACAPR by LH/hCG in granulosa cells of preovulatory follicles. Furthermore, RNase protection assay revealed that the short variant of ovarian PACAPR is the predominant form stimulated during prepubertal development and by gonadotropins. These results demonstrate the expression of PACAPR mRNA in granulosa cells of large preantral follicles and of preovulatory follicle stimulated by gonadotropins, and suggest that PACAP may play a role in the growth of developing follicles and in ovulation as paracrine/autocrine factor.

## O-20 Comparison of Tubal Patency and Pregnancy Rate in Microsurgical Reanastomosis

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**Purpose:** To determine the use of the laser technique possible in microsurgical tubal reanastomosis, the authors compared methods using Infrared laser beam and suture, conditioned with or without splint insertion.

**Material and Methods:** Total 60 rabbits were used in experimental tuboplasty. To compare tubal patency, pregnancy rate, and histologic difference in anastomosis sites, the authors performed three kinds of anastomosis in rabbits; Group I: 1 or 2 layer anastomosis with splint, Group II: 1 or 2 layer anastomosis without splint, Group III: use of laser without splint (a) and use of laser with splint (b).

**Results are as Follows:** 1. Infiltration of inflammatory cell appeared in three group by optical microscopic examination. More fibrosis and inflammatory cell infiltration appeared in group II without a significant statistical difference, and there was no significant difference between left and right tubes in each group. 2. In the incidence of tubal patency, group II was significantly higher (75%) than group I (50%), especially, group III using laser and splint was the highest (90%) compared with other groups ( $p<0.05$ ). 3. In the pregnancy rates, each group not using splint was lower than groups using splint ( $p<0.05$ ), especially, laser using group with splint (group III-b) was the highest (80%) ( $p<0.05$ ).

**Conclusion:** From the above results, it is considered that the tubal reanastomosis using splint and Nd-YAG laser will improve the pregnancy rate, and its usefulness could be increased along development of laser technique.