

# I S—31 Specific binding sites for $^{125}\text{I}$ -Endothelin-1 in human myometrium and leiomyomas

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**Objective:** We investigated the presence of binding sites of endothelin-1 (ET-1) receptors in the human leiomyoma and myometrium of premenopausal women.

**Material and Methods:** We used the quantitative receptor autoradiographic method plus  $^{125}\text{I}$ -endothelin-1 ( $^{125}\text{I}$ -ET-1), BQ-123, a specific antagonist for the endothelin  $\text{ET}_\text{A}$  receptor, sarafotoxin S6c and IRL-1620, a selective agonists for the  $\text{ET}_\text{B}$  receptor and found evidence for BQ-123-sensitive  $\text{ET}_\text{A}$  in the human leiomyoma and myometrium.

**Results:** The number of specific  $^{125}\text{I}$ -ET-1 binding sites ( $B_{\text{max}}$ ) was significantly higher in samples from leiomyomas than from myometrium ( $648 \pm 211$  fmol/mg and  $384 \pm 114$  fmol/mg, respectively). Receptor affinity ( $K_\text{d}$ ) did not differ significantly between these groups ( $0.53 \pm 0.17$  nM and  $0.3 \pm 0.09$  nM, respectively). Unlabeled BQ-123 showed a strong affinity for  $^{125}\text{I}$ -ET-1 binding to tissue sections of the leiomyomas and myometrium with a 50% inhibiting concentration ( $\text{IC}_{50}$ ) of  $4.27 \pm 0.4 \times 10^{-9}$  M, and  $5.2 \pm 1.5 \times 10^{-9}$  M, respectively. Sarafotoxin S6c and IRL-1620 could not compete for  $^{125}\text{I}$ -ET-1 binding to leiomyomas or myometrium.

**Conclusions:** These observations suggest that the  $\text{ET}_\text{A}$  receptor is predominantly expressed in human leiomyoma tissue and that ET may act as a growth factor on the leiomyoma cells by interacting with the  $\text{ET}_\text{A}$  receptor, the ovarian steroids, and others growth factors present in the human leiomyoma.

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Postoperative tubal patency and pregnancy rates after three types of terminal salpingoneostomy under the operative laparoscopy

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The purpose of this study is to evaluate efficacy of terminal salpingoneostomy under the operative laparoscopy and to find the best operation method.

Fifty-eight patients were diagnosed to one or both terminal tubal obstructions were treated by three types of operation, and their postoperative tubal patency and pregnancy rates were compared each other. Clubbed fimbria was incised by scissors and everted by 4-0 polydioxanon suture in 16 of 58 cases (type I), and incised by needle diathermy and everted by endocoagulator in 19 of 58 cases (type II). In 23 of 58 cases, perforation of clubbed tube was performed by needle diathermy and then opening was dilated by grasping forceps and fimbria was everted by intussusception methods and suture (type III).

On postoperative hysterosalpingograms that were checked 2 months later, one or both tubes were patent in 8 of 16 cases (50%) at type I and patent in 16 of 19 cases (84.2%) at type II and type I ( $p < 0.05$ ). Therefore terminal patent in 22 of 23 cases (95.7%). Therefore type III operation method revealed higher than other two operation types ( $p < 0.01$ ). Intrauterine pregnancy rates were 5 of 16 cases (31.3%) at type I, 10 of 19 cases (52.6%) at type II and 14 of 23 cases (60.8%) at type III. Pregnancy rate of type III was higher than that of type I ( $p < 0.05$ ).

Therefore terminal salpingoneostomy under the operative laparoscopy was reliable operation, and best operation method is making new fimbrial opening by dilatation using grasping forceps and eversion using intussusception method and suture.