

I S—51 Attenuation of Human Chorionic Gonadotropin Release by Nitric Oxide in Choriocarcinoma Cell Lines

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Objective: The involvement of Nitric oxide (NO) in the endocrine regulation has been known. This study was aimed to examine whether NO has a role in human chorionic gonadotropin (hCG) release by using choriocarcinoma cell lines. **Methods:** The presence of NO synthase (NOS) was examined in cell homogenates of two different choriocarcinoma cell lines (JEG-3 and BeWo) by L-arginine to L-citrulline conversion assay and Western blot analysis. The effects of NO on hCG secretion was studied by adding sodium nitroprusside, N^G-monomethyl-L-arginine (L-NMMA), hemoglobin and 8-Br-cGMP in the culture medium and measuring hCG released by EIA. **Results:** NOS activity distributed mainly in the particulate fraction in the cells, depended on calcium/calmodulin and was inhibited by substrate analog (L-NMMA, 10⁻⁴M). Immunoblot analysis of choriocarcinoma cell lines with anti-endothelial NOS serum confirmed that the cultured choriocarcinoma cells contained endothelial isoform of NOS. Sodium nitroprusside inhibited secretion of hCG in a dose-dependent manner (10⁻⁵-10⁻⁴M) in both cell lines. The suppression was blocked by NO scavenger(hemoglobin, 10⁻⁶M). Incubation of cell lines with NOS inhibitor (L-NMMA, 10⁻⁴-10⁻³M) significantly increased the basal level of hCG release. Exposure of both cell lines to cGMP analog (8-Br-cGMP, 10⁻⁴-10⁻²M) caused the dose-dependent inhibition of hCG release. **Conclusion:**JEG-3 and BeWo choriocarcinoma cell lines express endothelial isoform of NOS. NO attenuated hCG release in these cell lines. Activation of guanylate cyclase and elevated intracellular cGMP level might be the possible mechanism in mediating this process.

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The comparison of Laparoscopic-Assisted Vaginal Hysterectomy with Classic Intrafacial Semm Hysterectomy

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Laparoscopic assisted vaginal hysterectomy (LAVH) is a conservative technique that is effective when vaginal hysterectomy is often contraindicated in candidate with such pathology as large myoma, endometriosis, significant pelvic inflammatory disease or severe pelvic adhesion. LAVH has significantly reduced morbidity and mortality associated with abdominal hysterectomy. Recently, employing additional technologies, the laparoscopic hysterectomy can now be performed with the supracervical approach(classic intrafacial-semm hysterectomy, CISH) Therefore, for the purpose of evaluating these two surgical procedures, we compared perioperative and postoperative courses of LAVH and CISH. The subjects were 186 women(132 LAVH, 54 CISH) with pelvic pathology unsuitable for vaginal hysterectomy. The average operating time was LAVH 124 minutes and CISH 125 minutes. The average length of hospital stay is 4.2 days for LAVH and 2.5 days for CISH. Estimated blood loss is 216 ml for LAVH and 185 ml for CISH. The complication rate is 6.8% for LAVH and 5.6% for CISH. There are no significant differences in surgical outcome between LAVH and CISH. Thus, we conclude that although long term follow up is pending, these two surgical procedures seem to be appropriate modalities to laparoscopic hysterectomy.