GO-17

Voiding difficulty after radical hysterectomy for cervical cancer can be predicted by using pre-operative urodynamic study profile

Tae Hun Kim¹, Hee Seung Kim¹, Seung-June Oh², Noh-Hyun Park¹

Department of Obstetrics and Gynecology, Seoul National University College of Medicine¹, Seoul, Department of Urology, Seoul National University Hospital², Seoul, Korea

**Goal:** About 33% of patients who underwent radical hysterectomy (RH) suffer from voiding difficulty. Spontaneous voiding and post void residual volume has been used to assess whether the voiding function is restored or not during post-operative period. The aim of this study was to assess risk factor for voiding difficulty after radical hysterectomy.

**Method:** From 2006 to 2008, patients who underwent RH by single surgeon for uterine cervical cancer with a stage of 1A1 to 2B were prospectively collected and analyzed. Urodynamic studies (UDS) were performed before, 10 days after RH. Urethral catheter were removed on postoperative 8 days. If the post-void residual (PVR) did not decrease to less than 100 mL until postoperative 10 days, the patients were instructed to perform clean intermittent self-catheterization (CIC) after discharge.

**Result:** Median age was 47 years old and no patient complaint voiding difficulty before RH. 33% of patients (15/45) had failed to void until discharge day. Detrusor pressure at maximal flow (PdetQmax) and detrusor pressure at opening flow (Pdet,open) on pre-operative UDS were significantly higher in voiding failure group than in spontaneous voiding group. Receiver operating characteristic curve revealed that area under the curve of PdetQmax and Pdet,open are 0.68 and 0.74 respectively. 35 cm H2O for Pdet,open was determined as cutoff value. In multivariate analysis adjusting age, mode of RH and diabetes, Pdet,open greater than 35 cm H2O in pre-operative UDS was an independent factor for predicting post-RH voiding failure (hazard ratio, 9.54; 95% confidence interval, 2.0-44.3)

**Conclusion:** Spontaneous voiding after radical hysterectomy is regarded as a parameter for restoring bladder function and performance of nerve sparing RH. Pre-operative patient’s intrinsic factors related to the bladder outlet obstruction are significantly associated with voiding difficulty after RH.

GO-18

Steroid Receptor Activator modulates proliferation and invasion in the human ovarian cancer cell

Hee Jung Kim, Ga Won Yim, Eun Ji Nam, Seon Mi Baek, Hee Jin Nam, Dawn Chung, Sunghoon Kim, Sang Wun Kim, Jae Wook Kim, Young Tae Kim

Institute of Women's Life Medical Science, Department of Obstetrics and Gynecology, Yonsei University College of Medicine, Seoul, Korea

**Goal:** Long non-coding RNAs (lncRNAs) are newly identified regulators in tumorigenesis and tumor progression. Although the functions of lncRNAs and the mechanisms regulating their expression are largely unknown, recent studies are beginning to solve their importance in human health and diseases. Steroid receptor RNA activator (SRA) RNA levels might affect some biological functions, such as proliferation, apoptosis, steroidogenesis, and myogenesis, has been reported. This study investigated the molecular aggressive function of SRA in ovarian cancer.

**Method:** To investigate the role of SRA in the development of ovarian cancer, we examined SRA expression in ovarian cancer tissues (n=14) and corresponding normal tissues (n=16) by real-time polymerase chain reaction. Knockdown of SRA (siSRA) by RNA interference was performed to explore its roles in cell proliferation, migration and invasion assay.

**Result:** SRA expression was significantly upregulated in ovarian cancer tissues compared to normal ovarian tissues. Real-time PCR results showed high expression levels of SRA in SKOV3, TOV112D and OVCA429 human ovarian cancer cell lines. Knockdown of SRA reduced cell proliferation, migration, and invasion in OVCA429 cells. Moreover, SRA knockdown decreased the expression of vascular endothelial growth factor and matrix metalloproteinase-9, which are important for cell motility and metastasis. Therefore, SRA may promote tumor aggressiveness through the upregulation of VEGF and MMP-9.

**Conclusion:** These results identified an important role of SRA in the molecular etiology of ovarian cancer and implicated the potential application of SRA in ovarian cancer therapy.