ISP-3-4  Prognostic value of pre-treatment SCC-Ag level in patients with cervical cancer

Department of Obstetrics and Gynecology, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Korea
Jung-Joo An, Yoo-Young Lee, Jin Young Park, Chel Hun Choi, Tae-Joong Kim, Jeong-Won Lee, Byoung-Gie Kim, Duk-Soo Bae

Objective: The purpose of this study is to investigate the prognostic role of pre-treatment SCC-Ag (squamous cell carcinoma-related antigen) level in patients with squamous cell carcinoma of the uterine cervix.

Methods: In this study, we retrospectively enrolled patients with squamous cell carcinoma of the uterine cervix (FIGO stage IB to IVA) who were treated at Samsung Medical Center, Seoul, Korea, from 1996 to 2007.

Results: We retrospectively enrolled 788 patients. Median SCC-Ag level was 1.6 ng/ml (0.1-362.0) in all patients. 407 out of 788 patients had elevating pre-treatment SCC-Ag level (51.6%). When we divided the cohort based on the stage (ECC; early cervical carcinoma; IBI and IIA vs. LACC; locally advanced cervical carcinoma; IB2 and IIB to IVA) and performed multivariate analysis, pre-treatment SCC-Ag entailed prognostic significance only in LACC (progression-free survival; HR, 1.007; 95% CI, 1.003-1.010, overall survival; HR, 1.005; 95% CI, 1.001-1.009). Among patients who showed recurrence disease and had the result of SCC-Ag before recurrence (n=94), 79 patients (84.0%) had the elevation of SCC-Ag level at the time of recurrence.

Conclusions: In conclusion, pre-treatment SCC-Ag level is an independent prognostic factor for survival in patients with LACC. Measuring pre-treatment serum SCC-Ag may be a cost-effective method to predict prognosis in patients with LACC.

Keywords: squamous cell carcinoma-related antigen; TA-4; uterine cervical neoplasms; prognostic; survival

ISP-3-5  The role of human papillomavirus (HPV) types 16 E6/E7 oncoproteins in fibroblast growth factor (FGF) 2 and 4 induced cervical epithelial-mesenchymal transition (EMT) and carcinogenesis

Department of OB/GYN, College of Medicine National Cheng Kung University Hospital, Taiwan
Ya-Min Cheng, Cheng-Yang Chou

Cervical cancer is the most common malignancy cancer in female in the world. Previous reports concerning the prevalence of E6/E7 oncoproteins of human papillomavirus (HPV) types 16 has been shown play an important role in cervical cell carcinoma. We have investigated the functional interaction of HPV16 E6/7 transfection Cx cells (CxWJ cells) with the FGF 2 and 4 treatments. The results found that up-expression of αSMA, Vimentin and down-regulation E-Cadherin protein expression in CxWJ cells. HPV16 E6/7 infection can partially repressed the proliferation effect, but not invasive ability of FGF 2 and 4 stimulations in the cervical cancer cells (CxWJ cells). These data show evidence of a functional interaction between HPV16 E6/7 and FGFs (2 and 4), and suggest that the cooperation of HPV E6/7 and FGFs stimulation, which are activated in human cervical cancers, may be necessary to overcome completely the oncogenic function in the development of cervical epithelial-mesenchymal transition and tumourgenesis.

ISP-3-6  Characterization of an established cell line (OMC-4) originating from a human uterine cervical adenocarcinoma

Department of Pathology, Osaka Medical College
Takashi Yamada

[Objective] A new human uterine cervical adenocarcinoma cell line, designated OMC-4, was established from the tumor of a 47-year-old woman who gave informed consent. [Methods] The tumor was finely minced with a pair of sharp blades in a dish, stirred with a magnetic stirrer in a 0.25% trypsin solution, centrifuged at 70 g for 5 min and placed in culture medium at 37°C in humidified 5% CO2 and 95% air. [Results] This cell line has grown well for 25 years and has been subcultured more than 50 times. Monolayer cultured cells are polygonal in shape and appeared to be epithelial showing a tendency to pile up without contact inhibition. The doubling time was 63 hours, the saturation density was 4.6 × 10⁵/cm², theplating efficiency was 18% and the mitotic index was 5.6%. The chromosomal number shows aneuploidy and the modal chromosomal number was in the hyper-diploid range. The cells could be transplanted into the subcutis of nude mice and produced tumors resembling the original tumor. OMC-4 cells (2 × 10⁵/5ml) produced CA 125, CA 19-9, TPA during 5 days in culture media. The cells were sensitive to actinomycin D, carboplatin, cisplatin and cyclophosphamide by MTT assay. [Conclusion] OMC-4 would be very useful for basic research of uterine cervical adenocarcinoma.