

and type ( $p=0.8$ ). Higher GGT levels were found in advanced tumour stages (FIGO I vs. II vs. III vs. IV,  $p=0.002$ ). High-risk GGT group affiliation ( $p=0.01$  and  $p<0.0001$ ) was associated with impaired disease-free and overall survival in a univariate analysis, but not in a multivariable regression model ( $p=0.7$  and  $p=0.3$ ) (Table 1). We further investigated the association between prognosis and GGT and observed a linear correlation between GGT and prognosis. Therefore we were not able to identify a clear prognostic cut-off value for GGT in patients with cervical cancer.

**Conclusion:** High GGT – a marker for apoptosis and cervical cancer risk – is associated with advanced tumour stage in patients with cervical cancer.

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POSTER

**Nuclear Y-box Binding Protein-1 Expression, a Predictive Marker of Prognosis, Is Correlated With Activated Signal Transducer and Activator of Transcription-3 Expression and Survival in Cervical Squamous-cell Carcinoma**

S. Nishio<sup>1</sup>, K. Ushijima<sup>1</sup>, A. Fukui<sup>1</sup>, N. Tsuda<sup>1</sup>, K. Kawano<sup>1</sup>, S. Ota<sup>1</sup>, G. Sonoda<sup>1</sup>, T. Yamaguchi<sup>2</sup>, M. Kage<sup>2</sup>, T. Kamura<sup>1</sup>. <sup>1</sup>Kurume University School of Medicine, Gynecologic Oncology, Kurume, Japan; <sup>2</sup>Kurume University Hospital, Pathology, Kurume, Japan

**Background:** The Y-box binding protein-1 (YB-1) is a member of the cold shock protein family and functions in transcription and translation. Many reports indicate that YB-1 is highly expressed in tumour cells and is marker for tumour aggressiveness and clinical prognosis. The potential role of activated signal transducer and activator of transcription-3 (STAT3) was pursued to address the underlying mechanism for YB-1-mediated survival. We have previously reported that STAT3 expression in cervical squamous-cell carcinoma acts as predictor of poor prognosis. Here, we examined whether nuclear YB-1 expression is associated with STAT3 expression and survival.

**Materials and Methods:** The immunohistochemical analysis of nuclear YB-1 expression was performed on tissues from 117 cervical squamous-cell carcinoma patients who underwent extended hysterectomy and pelvic lymphadenectomy and the association of nuclear YB-1 expression with several clinicopathological factors including STAT3 expression and survival was investigated.

**Results:** Nuclear YB-1 expression was observed in 24 of 117 (20.5%) cases and was correlated with deep stromal invasion, and STAT3 expression by Fisher's exact test. Kaplan-Meier survival analysis showed that nuclear YB-1 expression was statistically indicative of a poor prognosis for progression-free survival, but not overall survival by log-rank test. By multivariate analysis, lymph node metastasis, STAT 3 expression and nuclear YB-1 expression were independent prognostic factors with regard to progression-free survival.

**Conclusions:** These data showed that nuclear YB-1 expression, a predictive marker of prognosis, is correlated with STAT3 expression and survival in cervical squamous-cell carcinoma.

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POSTER

**ERCC1 Expression Predicts Response and Survival in Locally Advanced Cervical Carcinoma Patients Treated With Concurrent Chemoradiotherapy**

H.J. Lee<sup>1</sup>, Z.L. Liang<sup>2</sup>, E.K. Song<sup>3</sup>, H.J. Yun<sup>1</sup>, S. Kim<sup>1</sup>, D.Y. Jo<sup>1</sup>, J.M. Kim<sup>2</sup>. <sup>1</sup>Chungnam National University Hospital, Internal Medicine Cancer Research Institute, Daejeon, Korea; <sup>2</sup>Chungnam National University Hospital, Pathology, Daejeon, Korea; <sup>3</sup>Chonbuk National University Hospital, Internal Medicine, Jeonju, Korea

**Background:** No suitable biological marker has been identified in patient with locally advanced uterine cervical cancer treated with concurrent chemoradiotherapy, although there is growing demand in clinical practice for individualized treatment planning. The aim of this study was to investigate whether ERCC1 expression predicted tumour response and survival in uterine cervical cancer patients who had been treated with cisplatin-based concurrent chemoradiotherapy.

**Materials and Methods:** Fifty patients with stage II-III invasive squamous cell carcinoma of the uterine cervix who were treated with concurrent chemoradiotherapy were enrolled. ERCC1 expression was assessed by immunohistochemistry from pretreatment cervical biopsy tissues.

**Results:** Of the 50 tumours examined, 16 (32%) were classified as ERCC1-positive expression and 34 (68%) as ERCC1-negative expression. Patients with ERCC-negative expression had a significantly higher complete response (33/34, 97.1%) than patients with ERCC1-positive expression (12/16, 75.0%;  $P=0.015$ ). The 5-year disease-specific survival rates of the ERCC1-positive and -negative groups were 43.8% and 76.5%, respectively ( $P=0.011$ ). The 5-year overall survival for the ERCC1-positive and -negative groups was 50.0% and 85.3%, respectively ( $P=0.008$ ).

Multivariate analyses showed that ERCC1-negative expression (HR, 0.293; 95% CI, 0.100–0.863;  $P=0.026$ ) was an independent risk factor predicting the disease-specific survival of the patients. For overall survival, ERCC1-negative expression was still an independent prognostic factor ( $P=0.036$ ). **Conclusions:** These results suggest that the ERCC1 expression patterns in pretreatment specimens can be used to predict the clinical outcome, including the tumour response and survival in patients treated with cisplatin-based chemoradiotherapy for locally advanced uterine cervical cancer.

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POSTER

**Prognostic Role of Microvascular Density (MVD), VEGF, HIF-1, and EGFR Expression in Women Suffering From Locally Advanced Cervical Cancer (LACC) Treated With Chemoradiotherapy in Colombia – ONCOLGroup Study**

A.F. Cardona<sup>1</sup>, H. Carranza<sup>1</sup>, L.F. Jaramillo<sup>2</sup>, J.M. Otero<sup>1</sup>, C. Castro<sup>1</sup>, C. Vargas<sup>3</sup>, P. Archila<sup>3</sup>, A. Muñoz<sup>4</sup>, H. Becerra<sup>1</sup>, S.J. Serrano<sup>5</sup>.

<sup>1</sup>Fundación Santa Fe de Bogotá, Clinical and Translational Oncology, Bogotá, Colombia; <sup>2</sup>Hospital San Ignacio, Pathology Department, Bogotá, Colombia; <sup>3</sup>Hospital de San José/Fundación Universitaria Ciencias de la Salud, Pathology Department, Bogotá, Colombia; <sup>4</sup>Fundación Santa Fe de Bogotá, Radiation Oncology, Bogotá, Colombia; <sup>5</sup>Fundación para la Investigación Clínica y Molecular Aplicada del Cáncer – FICMAC, Molecular Biology, Bogotá, Colombia

**Background:** Recent data series showed that cervical carcinoma is the second leading cause of death among women in Colombia.

**Methods:** We want to describe the prognostic value of microvascular density (MVD), VEGF, HIF1 and EGFR in women suffering from LACC treated with chemoradiotherapy followed by high dose rate brachytherapy (HDRB). Overall response rates (ORR), progression-free survival (PFS) and overall survival (OS) were estimated.

**Results:** Sixty-one patients were included (mean age  $52 \pm 10$ -yo); all of them had LACC (2.3% 2A/47.5% 2B/4.9% 3A/37.7% 3B/3.3% 4A/3.3% not defined), a tumour mean size of 6.4 cm (SD  $\pm 1.8$  cm) and HPV infection in 46% of the cases. Fifty-eight patients (95%) had a squamous pattern, two were adenocarcinomas and >50% presented moderately or poorly differentiated neoplasias. All of them were treated with chemotherapy (transitory interruption in RT was documented in 19% due to toxicity and in 21.4% of cases by other causes; mean cycles of platinum administered during radiotherapy was  $4.8 \pm 1.0$ ) and HDRB (77% completed all planned treatment). The median PFS and OS was 6.6-mo (range, 4.0–9.1) and 30-mo (range, 11–48) respectively. None of the variables had a positive effect on PFS, whilst multivariate analysis revealed that VEGF ( $p=0.026$ ) and EGFR expression levels ( $p=0.030$ ) and less than 6 cm tumour volume ( $p=0.02$ ) positively influenced the OS.

**Conclusions:** Classifying LACC patients treated with cisplatin-based chemoradiotherapy by protein expression had a positive influence on prognosis.

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POSTER

**Fused Toes Homolog is a Novel Oncoprotein Involved in Uterine Cervical Carcinogenesis and a Potential Diagnostic Marker for Cervical Cancer**

S. Cinghu<sup>1</sup>, A. Anandharaj<sup>1</sup>, H. Lee<sup>2</sup>, J. Yu<sup>3</sup>, W. Park<sup>1</sup>. <sup>1</sup>Chungbuk National University College of Medicine, Department of Radiation Oncology, Cheongju, Korea; <sup>2</sup>Chungbuk National University College of Medicine, Department of Pathology, Cheongju, Korea; <sup>3</sup>Konkuk University College of Medicine, Department of Tropical Medicine and Hygiene, Chungju, Korea

**Background:** The high incidence and fatality rate of uterine cervical cancer warrant effective diagnostic and therapeutic target identification for this disease. Here, we have found a novel oncoprotein FTS (Fused Toes Homolog), which is involved in cervical cancer pathogenesis.

**Materials and Methods:** For Immunohistochemical analysis of FTS total 49 formalin-fixed paraffin-embedded specimens of human cervical CIN and carcinoma tissues were stained. For in vitro study, HeLa, ME180, SiHa, and CaSki cells were used.

**Results:** Immunohistochemical analysis of human cervical biopsy samples revealed that the expression of FTS is absent in normal cervical epithelium but progressively overexpressed in human cervical intraepithelial lesions (CIN-I to CIN-III), this characteristic phenomenon put this protein, a potential diagnostic marker for the screening of early neoplastic changes of cervix. Using FTS-specific small hairpin RNA (shRNA) in cervical cancer cells, we determined a specific role for FTS protein in, cervical neoplasia. Targeted stable knock down of FTS in HeLa cells led to the growth inhibition, cell-cycle arrest, and apoptosis with concurrent increase in p21 protein. FTS effectively represses the p21 mRNA expression in dual luciferase assay which indicates that p21 is transcriptionally regulated by