P–41; **KI-67, p53 AND p63 EXPRESSION IN MALIGNANT CERVICAL LESIONS INDUCED BY HUMAN PAPILLOMA-VIRUS INFECTION**

Ruxandra Stanculescu[1,2], Teodora Vladescu[2], Florina Vasilescu[3], Zenaida Ceausu[2], Mihai Ceausu[3], Carmen Ardelean[3], Cristina Tanase[3]

[1]*University of Medicine „Carol Davila" Bucharest, Bucharest, Romania*

[2]*St Pantelimon Hospital, Bucharest, Romania*

[3]*National Institute „Victor Babes", Bucharest, Romania*

Background: More than 99% of cervical cancers are positive for high-risk human papillomaviruses (HPVs). The interaction of human papilloma virus oncoproteins E6 and E7 with cell cycle proteins leads to disturbances of the cell cycle mechanism and subsequent alteration in the expression of some proteins, such as p63, p53 and Ki-67.

Objectives: In this study, we have compared alterations in the expression of these aforementioned proteins in squamous cell carcinoma of the cervix with different patterns.

Materials and Methods: Twenty-six formalin-fixed parafin-embedded samples of infiltrating squamous cell carcinoma selected from thirty Papanicolaou smear-positive samples have been assessed using the standard HE stain and SABC (streptavidin biotin complex) indirect tristadial immunohistochemical method for Ki-67, p53, p63 and HPV. Data was statistically analyzed using the t-Student parametric test, paired two samples for mean variance, by using MS-Excel 2003 running under Windows XP Professional.

Results: p53 was expressed in 14 of 26 cases (53.86%), ranging from 5% to 30% (mean = 0.05, SD = 0.07), p63 was expressed in 25 of 26 cases (96.15%), ranging from 25% to 80% (mean = 0.50, SD = 0.19), Ki-67 was positive in 20 of 26 cases (76.92%), ranging from 10% to 50% (mean = 0.24, SD = 0.20). HPV stain was positive in all studied cases. The expression patterns of these markers were correlated with the histopatological diagnosis and infection with HPV. Statistically significant positive and negative correlations were noticed between p63 and Ki-67 ($r = 0.33$, $p < 0.001$) and between p63 and p53 ($r = -0.5$, $p < 0.001$).

Conclusions: The significant increase in the expression of the analyzed immunomarkers was constantly observed in cases with late stage of cervical carcinogenesis. The immunomarkers p63, followed by Ki-67 showed better correlation with cancer progression than p53. This observation will be used in clinical practice targeting to identify those patients requiring a more aggressive treatment.