

## THE VALUE OF EXPRESSION CD 105 IN THE BLOOD VESSELS OF COLON CANCER FOR PREDICTION ADJUSTED DISEASE-FREE SURVIVAL

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**Introduction.** Endoglin (CD105) - transmembrane glycoprotein whose level is elevated in patients with various tumors, including breast cancer, colorectal cancer (CRC), myeloid tumor [1].

**Purpose.** Determine the value of CD 105 expression in the blood vessels of colon cancer for prediction adjusted progression-free survival of patients.

**Materials and methods.** Clinical and morphological characteristics of patients published earlier [2]. Description quantification and statistical analysis methods shown in the previous article [3].

**Results.** Patient age ranged from 37 years to 81 years in men - from 46 to 81, women - from 37 to 80 years. Dominated by a person older than 60 years (76%). In most patients, the tumor developed in the distal (59 cases - 81.94%). In 11 cases (15.4%) at the time of surgery was diagnosed with stage I cancer, 14 cases (19,4%) - II, 33 (45,8%) - III and 14 (19,4%) - IV. The presence of regional metastases was observed in 44 patients (61.1%). Thus N1 was put in 33 cases, and N2 at 11. Germination of tumors into adjacent tissues and organs found in 6 cases (8.3%). At the time of diagnosis in 12 patients (16.6%) had hematogenous metastases, 9 of them had new 5 years. Histologically, the tumors in all cases revealed varying degrees of differentiated adenocarcinoma: G1 - 29 (40.2%) patients, G2 - in 26 (36,1%), G3 - 15 (20.8%) and G4 - y 2 (2.9%). During the observation period (from 2001 to 2016.) In 24 patients (33.3%) were identified recurrences, with 12 of them relapsed within the first two years after surgery, and the rest within 5 years. On average, the tumor recurred after 2.19 years (1,68-3,39). During the period of observation of 45 patients died (62.5%). Median general survival was 5.29 years (2,81-11,19). Adjusted Median progression-free survival was 2.5 years (1,6-4,2).

The Spearman test revealed a negative correlation between the level of CD105 positivity and adjusted progression-free survival ( $r = -0,35$ ,  $p = 0.026$ ). No significant expression was higher in the tumor antigen studied patients with less than 3 year survival (0,83 (0,69-0,89)), more than survival of 3 years (0,69 (0,48-0,74)) ( $p = 0.001$ ). Expression of CD105 in the tumor of patients with less than five year survival rate is significantly higher than the survival rate at 5 years (0,77 (0,61-0,86) and 0,66 (0,47-0,72), respectively) ( $p = 0.004$ ).

**Conclusions.** Determination of CD105 expression level may be used for predicting the three- and five-year adjusted disease-free survival in patients with adenocarcinoma of the colon.

### Literature.

1. Bernabeu C, Lopez-Novoa JM, Quintanilla M. The emerging role of TGF-beta superfamily coreceptors in cancer. *Biochim Biophys Acta* 2009, 1792: 954-973.
2. Корреляция уровня экспрессии CD 105 в раке толстой кишки с прогнозом течения заболевания / Т.Т. Штабинская, Е.Н. Кендыш, М. Боднар, В.А. Басинский // материалы конференции студентов и молодых ученых, посвященной памяти профессора Ю.Г. Бойко 23-24 апреля 2015. – Гродно: ГрГМУ, 2015. – С. 638-639.
3. Значение уровня позитивности CD105 в раке толстой кишки для прогноза эффективности химиотерапии / Т.Т. Штабинская, М. Боднар, С.А. Ляликов, в.А. Басинский, А. Маршалэк // Евразийский онкологический журнал. – 2015. - №4 (07). - С. 35-42.