Introduction/Background Classification of lymph node metastases according to the size into macrometastases > 2 mm (MAC), micrometastases 0.2 – 2 mm (MIC) and isolated tumour cells <0.2 mm (ITC) was adopted from breast cancer. In cervical cancer, MAC is well established as one of the main prognostic factors, while the impact of MIC and ITC has been subject of controversy. Given the fact, that the size of nodal metastasis is a continual variable, we sought to identify a potential cut-off value for the minimal size of metastasis that is not associated with a negative prognostic impact.

Methodology Data of 967 cervical cancer patients, T1a1 L1-T2b stages, after primary surgical treatment with curative intent, including SLN biopsy followed by pathological ultrastaging, were obtained from the SCANN (Surveillance in Cervical CANcer) study. Iterative testing was performed for all subgroups of nodal metastases with upper size cut-offs ranging from 0.01 to 1.0 mm in 0.01 mm intervals. DFS in each subgroup was compared with the N0 cohort and the rest of the N1 group (> cut-off) using Log rank test.

Results When the subgroups were analyzed by the defined cut-off values, we found that disease-free survival was significantly shorter in subgroups with metastases ≥0.4 mm in diameter compared with the N0 subgroup (hazard ratio 2.311, P=.04; see figure 1a). The significance of metastases <0.4 mm could not be assessed due to limited statistical power (<80%). Also, no cut-off could be identified to separate a subcohort of small nodal metastases with significantly better prognosis than the rest of the N1 cohort (see figure 1b).

Conclusion In patients with cervical cancer, the presence of lymph node metastases has a significant negative impact on disease-free survival irrespective of the size of the metastases. Traditional classification of metastases (MAC, MIC and ITC) is of no clinical value.

PROGNOSTIC VALUE OF SYSTEMIC INFLAMMATORY MARKERS IN CERVICAL CANCER

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Introduction/Background There is increasing evidence that the host inflammatory response plays crucial role in the development and progression of cervical cancer (CC). It might be that cancer is associated not only with inflammation at the site of the lesion, but also with the overall systemic immune response. The aim of the study was to evaluate prognostic value of systemic inflammatory markers of CC and healthy controls.

Methodology In this prospective study, we examined levels of 7 different cytokines (TNF-α, IFN-β, IFN-γ, IL-1β, IL-6, LPC2 ir TREM-1) by using Magnetic bead-based multiplex (Luminex Corporation, United States) assay in sera of 94 squamous cell CC patients treated in Lithuanian University of Health Sciences Hospital Kaunas Clinics Obstetric and Gynaecology department and 88 healthy (NILM) women. The blood samples was collected before any treatment or diagnostic procedures.

Results CC patients prognostic value was found of TNF-α > 17.6 pg/ml; IFN-β > 79.01 pg/ml; IFN-γ > 1972.74 pg/ml; IL-1β > 145.3 pg/ml; IL-6 > 17.41 pg/ml; LPC2 > 3721.5 pg/ml and TREM-1 > 355.6 pg/ml. Based on the data set, we can predict a finite multivariate model of binary logistic regression analysis. CC the odds ratio is higher than 3.4, if LPC2 > 3721.5 pg/ml, CC the odds ratio is higher than 6.0, if TREM > 355.6 pg/ml and CC the odds ratio is higher than 11.4, if IL-6 > 14.4 pg/ml.

Conclusion Monitoring blood levels of LPC2, TREM-1 and IL-6 may be important in predicting cervical cancer especially in risk patients.