2022-RA-905-ESGO MISMATCH REPAIR DEFICIENCY IS NOT APPLICABLE AS BIOMARKER IN CERVICAL CANCER, YET MSH-2 HAS STRONG PROGNOSTIC VALUE

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Introduction/Background Although early detected cervical cancer is associated with good survival, prognosis for late-stage disease is poor and treatment options are sparse. Mismatch-repair (MMR) deficiency has surfaced as a predictor of immune checkpoint inhibitor responses in several cancer types, but its value in cervical cancer remains unclear. This study aimed to define the incidence of MMR deficiency and establish its prognostic significance as well as the value of separate MMR proteins in cervical cancer.

Methodology Expression of the MMR proteins MLH-1, PMS-2, MSH-2, MSH-6 was investigated by immunohistochemical staining (IHC) in a prospectively collected, population-based cervical cancer cohort of 508 patients with corresponding clinicopathological and follow-up data. Staining was scored as either negative or positive and was further defined by the staining index (SI), consisting of area and intensity of staining varying from 1–9. MMR deficiency was defined as negative expression in one or more of the proteins. Also, gene set enrichment analyses were performed and differentially expressed or mutated genes were identified, across the RNA and whole-exome sequencing cohorts (n=72 and n=75, respectively), consisting of data obtained from fresh tissue.

Results Eight tumours (1.5%) were MMR deficient, four of which were of neuroendocrine histology. MMR status did not independently correlate with survival when adjusted for histologic type (HR 1.93, p=0.222). Low MSH-2 (SI ≤4, n=48) associated with poor survival (HR: 1.94 p=0.02), also when corrected for tumour stage, type and patient age (HR 2.06, p=0.013). Furthermore, the MSH-2 low tumours associated with high tumour mutational burden (p=0.003) and a high frequency of (frameshift) mutations in the double-strand break repair gene *RAD50* (p<0.001).

Conclusion MMR deficiency is rare in cervical cancer and exhibits no independent relationship to survival in the current study. Low MSH-2 level is an independent prognostic marker for poor survival in cervical cancer.

2022-RA-908-ESGO THE IMPORTANCE OF PATHOLOGICAL ULTRASTAGING FOR SENTINEL LYMPH NODEBIOPSY IN CERVICAL CANCER, THE FINAL OUTCOME OF THE SENTIX STUDY (CEEGOG-CX01; ENGOT-CX2; NCT02494063)

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Introduction/Background One of the advantages of sentinel lymph node (SLN) biopsy is the removal of only a small number of lymph nodes with the highest risk of involvement. Pathological SLN ultrastaging allows detection of metastases not identified during standard histological examination. Sentix is international prospective cohort study on SLN biopsy in cervical cancer with closed recruitment, which allowed to evaluate the importance of SLN ultrastaging and its intensity (examined levels) for the detection of N1.

Methodology Eligible stages: T1a1/L1 – T1b2 (<4 or ≤2 cm for fertility sparing), no suspicious lymph nodes on imaging, bilateral SLN detection. SLNs were intraoperatively examined by one section (standard assessment corresponding to the examination of non-SLN), and consequently processed by an intensive protocol for ultrastaging (paraffin blocks sectioned completely in 150–200 µm intervals; two sections from each level, stained with H&E and immunohistochemically). SLNs were submitted for central quality control.

Results Final cohort of 647 patients was analysed. Standard SLN examination revealed macrometastases (MAC), micrometastasis (MIC), and isolated tumour cells (ITC) in 36, 10, and

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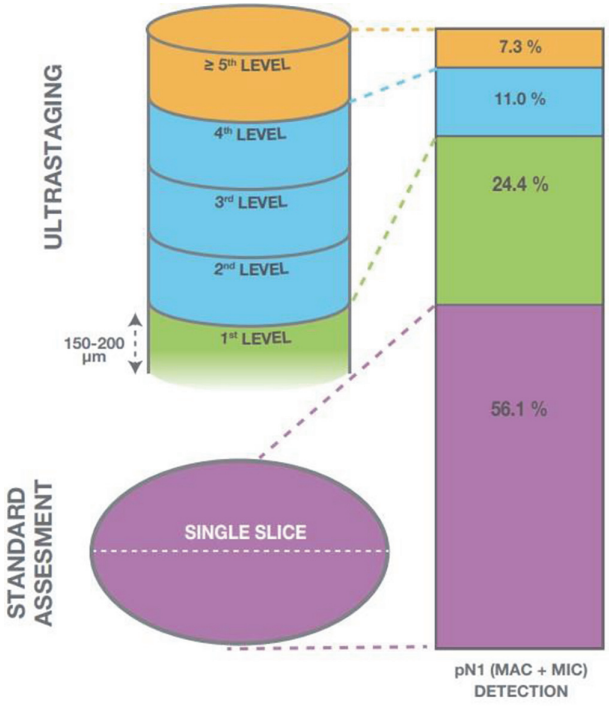
2 patients. Ultrastaging enabled to identify additional 7 cases with MAC, 29 MIC, 20 ITC. Of the 82 (12.7%) patients with positive SLN, only 46 (56.1%) cases were detected by standard assessment (83.7% MAC; 25.6% MIC). Additional N1 were identified by ultrastaging, 20 (24.4%) at level 1, 9 (11.0%) at levels 2–4, and 6 (7.3%) at level 5 or higher. There was no MAC beyond the first four levels.



Abstract 2022-RA-908-ESGO Figure 1

Conclusion Pathological ultrastaging is a key component of the SLN concept in cervical cancer. It enables detection of additional 44% of patients with N1 (MAC, MIC) and almost all (91%) with ITC. The detection of positive SLN directly correlates with the intensity of ultrastaging. Four levels should become an international standard, which allows to detect over 90% of N1 (MAC, MIC).

2022-VA-920-ESGO ADRENAL GLAND RECURRENT CERVICAL CANCER TREATED BY MINIMALLY INVASIVE APPROACH

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Introduction/Background Recurrence of disease represents a clinical challenge in cervical cancer patients and the choice of the best treatment depends on previous therapy and site of recurrent tumor. The paraortic lymph nodes and the lungs were the extrapelvic areas more frequently involved, whereas adrenal gland involvement is rarely reported. Some reports confirmed the survival benefit of secondary radical surgery in confined recurrence, although this finding has been rarely investigated in the literature with only a few case series reported mostly focusing on lung metastases.

Methodology Here a case of isolated adrenal gland cervical cancer recurrence in a 62-year-old woman is presented. Preoperative computed and emission tomography scans detected a nodule of 26 mm with increased uptake involving the medial lip of the right adrenal gland and a lymph node of 8 mm behind the inferior vena cava. A retrocaval lymphadenectomy and right adrenalectomy was performed. In this video we showed a minimally invasive approach tailored on the patient disease with the help of intraoperative ultrasound.

Results We reached a residual tumor of zero with good operation times. No intra or postoperative complications occurred. Final histology confirmed the metastatic involvement of both the adrenal gland and the retrocaval lymph node by an undifferentiated carcinoma. After a multidisciplinary board evaluation, the patient underwent chemotherapy.

Conclusion Minimally invasive surgery in selected patients with isolated extrapelvic cervical cancer recurrence is feasible and safe. Since radicality may be guaranteed by intraoperative imaging such as ultrasound, surgery can be tailored on the single patient and disease.

2022-RA-926-ESGO AWARENESS, ATTITUDES AND PRACTICES OF WOMEN IN RELATION TO CERVICAL CANCER SCREENING IN MAINLAND CHINA

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Introduction/Background According to the guidance of the World Health Organization (WHO), screening still remains the main strategy to eradicate cervical cancer, especially when the human papillomavirus (HPV) vaccine is not yet widely available in mainland China. This study assessed the knowledge, attitude, and practices toward cervical cancer screening among women in mainland China with the aim of informing prevention and control interventions.

Methodology We conducted a cross-sectional online survey in a random sample of women aged 30 years and above between 5 March to 7 April 2022 in seven geographical regions of China. The survey was composed of sociodemographic information, knowledge of the disease and its prevention, attitudes, and screening practice. Women's knowledge and attitudes towards cervical cancer prevention were assessed and scored. Multivariate logistic regression was conducted to explore determinants associated with screening practice.

Results A total of 3782 women (41.3±9.3 y) were included in the final analysis. The median knowledge score of cervical cancer and its prevention was 14.8 out of 22. More than one-third of women had never been screened, although 96.8% of them expressed a positive attitude towards screening. Nearly 40% of the women attended the opportunistic screening. Age, marital status, the industry of employment, household income, and knowledge of cervical cancer could influence screening practice. In addition, younger women, medical workers or government workers, and women with higher knowledge scores are more likely to attend the opportunistic screening.

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