HIGH-INTERMEDIATE AND HIGH RISK ENDOMETRIAL CANCER IS ASSOCIATED WITH INCREASED RATES OF LYMPH NODE INVASION

Introduction/Background High-intermediate and high-risk endometrial cancer cases are associated with increased risk for lymph node invasion. Main objective of the present study was to report the overall rate of pelvic and paraaortic lymph node invasion in these cases.

Methodology A retrospective single-center study was observed regarding the period 2019–2022. In this study we included cases with high-intermediate and high-risk endometrial cancer cases in which full surgical staging with pelvic and para-aortic lymphadenectomy was performed, either open or laparoscopically. Epidemiological and histopathological characteristics of patients were recorded. Primary outcome was the rate of overall lymph node invasion as well as the rate of invasion in pelvic and para-aortic lymph nodes separately. Univariate regression analysis was also performed to identify histopathological parameters being significantly associated with risk for lymph node invasion.

Results There were overall 22 cases identified during the period. Mean age of patients were 65.9 years, while final stage was assessed to be stage ≥ IIIA in 71.4% of cases (n=15). Overall rate of lymph node invasion was 59.1% (n=13), while relative rates for pelvic and para-aortic lymph nodes were 59.1% (13/22) and 50.0% relatively (11/22). Rates did not differ significantly between sub-groups of high-intermediate and high risk patients, ranging between 46.2% and 61.5%. LVSI was assessed to be independent factor of lymph node invasion (P=0.03).

Conclusion High-intermediate and high risk endometrial cancer cases are associated with high rates of pelvic and para-aortic lymph node invasion. Surgical staging still remains the procedure of choice in this category of patients to identify lymph node metastasis and thereafter tailor adjuvant treatment.

THE PROGNOSIS OF PATIENTS WITH ENDOMETRIAL CANCER IS AFFECTED BY OBESITY?

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Introduction/Background Endometrial carcinoma are divided, based on their histopathological characteristics, into Type I and Type II carcinoma. Type I tumors are mostly endometrioid carcinomas, represent up to ~80% of endometrial cancers, and are generally associated with endometrial hyperplasia. Type II tumors are more often serous papillary, clear cell, or squamous carcinomas, and generally develop from atrophic endometrial tissue in older women. There is some evidence that endocrine and nutritional lifestyle factors, including obesity, affect the risk of type I but not of type II tumors.

Methodology The data of 64 consecutive women with endometrial cancer stage FIGO III and IV that presented on out tumor board were retrospectively reviewed. Median age was 64 years, the youngest patient had 34 and the oldest 77 years. In FIGO stage III 56% of patients were diagnosed and 44% of patients in the FIGO stage IV. The majority of the patients in this study were found to have endometrioid histology subtype (41/62, 66.1%). However, the non-endometrioid histologic subtypes were well presented in our population (serous papillary 12/62, 19.3%, and clear cell 9/62, 14.5%). Median BMI was 25, BMI underweight 11%, BMI normal 39%, BMI overweight 50%.

Results The most overweight patient was in endometroid histology group, with median BMI of 27.16. The median BMI in non-endometroid histologic subtypes was around 22. In the endometroid histology group most of the patient were obese, 58.54%, underweight was 12% of patients and 29% of patient had normal BMI. In serous papillary subgroup 25% were obese and in clear cell group 35%.

Conclusion Patients with endometroid histology had a better prognosis, and were more likely to be overweight.

NECtin4 AS A NOVEL PROGNOSTIC MARKER FOR ENDOMETRIAL CARCINOMA

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Introduction/Background The adhesion molecule Nectin4 represents a new potential therapeutic target in different cancer models, but there has been little exploration of its diagnosis significance in endometrial cancer (EC).

Methodology EC samples from 258 patients were analyzed for Nectin4 by IHC on TMAs. Clinical outcomes were analyzed and stratified by MSH2, MSH6, MSI, and p53 with Nectin4. Progression-free (PFS) and overall survival (OS) were estimated using Kaplan-Meier methods via Cox proportional hazards regression. We generated the ROC curves to determine the optimal cutoff values of Nectin4 levels for the prediction of EC.

Results We found that Nectin4 was overexpressed strongly in archival tumor tissues from 258 EC patients than those healthy control and EIN by immunohistochemical staining. We showed that Nectin4 expression is associated with high grade and the impaired expression of DNA mismatch repair (MMR gene; MSH2, MSH6) and p53 with Nectin4. Progression-free (PFS) and overall survival (OS) were estimated using Kaplan-Meier methods via Cox proportional hazards regression. We generated the ROC curves to determine the optimal cutoff values of Nectin4 levels for the prediction of EC.

Conclusion We found that Nectin4 was overexpressed strongly in archival tumor tissues from 258 EC patients than those healthy control and EIN by immunohistochemical staining. We showed that Nectin4 expression is associated with high grade and the impaired expression of DNA mismatch repair (MMR gene; MSH2, MSH6) and p53, while there was no association between other clinical parameters and risk factors. Among them, patients with high Nectin4 expression in MSH2-deficiency EC exhibited a short PFS than those with low Nectin4 expression. Furthermore, our ROC analysis showed that EC could be distinguished from healthy control according to the Nectin4 levels, with an AUC value of 0.887 [95% CI, 0.852–0.916] with higher specificity [94.25%] and PPV [98.2%]. Of note, our bioinformatics analysis of public data revealed the gene alteration of Nectin4 in EC [14%], and its expression is well associated with gene alteration and expression of ERRB2.