transferred to a humidified chamber and incubated overnight at 4°C with antibody solution at 1:25 dilution. After blocking endogenous peroxidase with 3% H_2O_2, bound antibody was detected using goat anti-rabbit coupled to peroxidase and 3-amino-9-ethyl carbazole as chromogenic substrate.
Results: Public data from multiple DNA microarrays analysis of EOC was collected, standarized, and analyzed using web based programs. Among the 350 genes deregulated we had identified in EOC, TSPAN13 was overexpressed in the most common subtypes of EOC: papillary serous, endometrioid and mucinous. To study protein levels of tspan13 in these subtypes of EOC, we performed immunohistochemistry analysis. These studies revealed that tspan13 was overexpressed in all the samples analyzed, although the inmunostaining intensity depended on the subtype: strongest intensity was found in endometrioid tissues while the mucinous ones were the weakest.
Conclusions: Our studies in epithelial ovarian cancer show overexpression of TSPAN13, which codes for a protein, tspan13, that is also overexpressed in all the subtypes of EOC. The obtained results may provide the basis for its potential use as a novel marker for epithelial ovarian cancer.

8018 POSTER

CTNNB1 promoter methylation in ovarian carcinomas is associated with loss of beta catenin expression and poor patient survival

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Background: Beta catenin, links E-cadherin to alpha catenin, together forming the E-cadherin/catenin complex, which plays a crucial role in the organization and maintenance of epithelial integrity and suppression of tumour cell invasion and metastasis. In addition, beta catenin is involved in the regulation of gene transcription by the Wnt signalling pathway.
DNA promoter methylation is an important mechanism for gene silencing and loss of protein expression. The purpose of this study was to investigate whether methylation occurs at the CTNNB1 promoter in ovarian carcinomas showing loss of beta catenin protein expression by immunohistochemistry and determine its significance in relation to overall survival.
Methods and Patients: Real-time quantitative methylation specific PCR (QMSP) was employed to examine the DNA methylation status in the tissues of 93 patients with ovarian carcinomas. Absence of b-catenin protein expression was observed in 32 carcinomas and presence of b-catenin protein expression was observed in 61 carcinomas.
Results: Aberrant methylation in the promoter region of the 5′-CpG island of CTNNB1 was identified in 22/32 (68%) tumours showing loss of beta catenin expression by immunohistochemistry.*CTNNB1* promoter methylation was not identified in the 61 tumours showing positive beta catenin expression at the cell membrane. A significant correlation between poor overall survival and *CTNNB1* methylation was observed in patients with ovarian carcinomas. The 5-year survival was 22% for patients with CTNNB1 methylation compared with 58% for patients without CTNNB1 methylation ($P = 0.02$).
Conclusion: These results indicate that aberrant methylation in the promoter region of the 5′-CpG island of CTNNB1 occurs merely in tumours showing loss of beta catenin protein by immunohistochemistry and is an important mechanism for gene silencing in ovarian carcinogenesis. The correlation between loss of beta catenin expression and CTNNB1 methylation were useful in identifying and predicting a particular subpopulation of patients with ovarian carcinomas characterized by an unfavourable outcome.

8019 POSTER

Ki-67, survivin and E-cadherin expression in early stage cervical carcinoma

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Background: Multiple scientific efforts are made to detect the markers for prediction of cervical precancer progression. In this study the authors investigated the immunohistochemical expression of Ki-67, survivin and E-cadherin in cervical intraepithelial neoplasias (CIN I-CIN III) and invasive squamous-cell cervical carcinomas (CC) to evaluate their prognostic significance.
Material and Methods: Immunohistochemistry using avidin-biotin indirect immunoperoxidase method was used to study the protein expression of Ki-67 (marker of proliferation), survivin (inhibitor or apoptosis) and E-cadherin (component of the cell-cell adhesion complex) in 44 CIN cases (14 CIN I, 15 CIN II and 15 CIN III) and 27 carcinomas (14 microinvasive CC and 13 invasive CC of IB-IV FIGO stage).
Results: Active Ki-67 expression was found in 14% of CIN I, 46% of CIN II and 80% of CIN III cases suggesting that Ki-67 may be used as a marker of CIN proliferation. However, there was no significant difference in Ki-67 expression between CIN III cases, microcarcinomas (77%) and invasive CC (86%) and Ki-67 could not be used as a marker of cervical cancer progression. Survivin expression was not detected in normal squamous cervical epithelium, but was found in 67% of CIN I, 73% of CIN II, 93% of CIN III, 92% CC of IA stage and in 77% of invasive CC cases. Frequency of cases with active nuclear survivin staining increased with CIN grade, perhaps expression of survivin may be a predictive marker of unfavorable CIN prognosis. E-cadherin was expressed in all cellular membranes in normal squamous epithelium and frequency of cells with active membrane expression diminished with CIN progression. In was found in 77% CINI, 54% CIN II, 20% CIN III, 15% CC IA stage and 10% of invasive CC IB-IVstage ($P < 0.05$). Negative E-cadherin expression was shown in 13% CIN III, 8% CC of IA stage and 30% invasive CC. That is why weak or negative E-cadherin expression in precancer is unfavorable prognostic CIN marker.
Conclusions: Complex imunohistochemical analysis Ki-67, survivin and E-cadherin that are markers of different features of cell transformation may be useful for predictive evaluation of cervical precancer lesions.

8020 POSTER

Survival and clinicopathologic characteristics of invasive adenocarcinoma of the uterine cervix

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Background: Carcinoma of the uterine cervix is one of the most common malignancies among women. The relative proportion and absolute incidence of cervical adenocarcinoma (AC) compared with squamous cell carcinoma (SCC) has increased; in the 1950s 5% of all cervical carcinomas were adenocarcinoma, in the 1990s this proportion increased to 25%. It remains controversial whether or not patients with adenocarcinoma have a worse prognosis; questions remain about whether cervical adenocarcinoma metastasizes earlier or is detected later by the cervical Papanicolaou test, or whether a poorer response to radiotherapy or the inclusion of special subtypes (such as clear cell carcinoma, which is known for its dismal prognosis) could account for an apparent poorer prognosis.
Material and Methods: This retrospective study was done in the Clinical Oncology Department of the Brazilian National Cancer Institute with 278 cases of primary AC of the uterine cervix diagnosed between 2002 and 2004. Clinical and pathological data were reviewed; survival was analyzed according to the Kaplan- Meier method.
Results: Median age at presentation was 48 years; 50.4% of the patients were married and 66.9% were white. On histologic evaluation pure adenocarcinoma was found in 80.9% of the cases (n = 225), adenosquamous carcinoma in 14.4% (n = 40), clear cell carcinoma in 2.9% (n = 8) and other variants in 1.8% (n = 5). At diagnosis anemia was found in 29.5% of the patients, but 61.5% had metrorrhagia; 6.8% had hydronephrosis and 7.6% had high creatinine levels. Using FIGO stage 38.8% were stage I, 38.8% stage II, 17.9% stage III and 4.5% stage IV. Surgical treatment was used in 93 cases, radiochemotherapy combination in 69 cases and brachitherapy 129 cases. The median survival time was 34.9 months; 1-year, 3-year and 5-year overall survival rates were 81.2%; 67.2% and 54% respectively. The median survival time for the FIGO stage I, II, III and IV was 38.1; 35.4; 18.5 and 3.6 months.
Conclusions: Adenocarcinomas are becoming more common, this report shows a similar survival to that found in previous reports and demonstrates a high rate of early FIGO stages.