P-041

IMMUNOHISTOCHEMICAL STUDY OF PHYLLODES TUMOR OF THE BREAST

Yashar, G., Baseska, N., Kubelka, K., Zografski, G.
Dpt. of Histopathology and Clinical Cytology, Institute of Radiotherapy and Oncology, Medical Faculty, Skopje, Republic of Macedonia

Phyllodes tumor (PT) is a rare, fibroepithelial breast neoplasm with unpredictable prognostic and controversial therapeutic aspects.

Aims: The aim of this retrospective study is to evaluate Ki-67 and CD34 antigen expression, as well as estrogen (ER) and progesterone receptor (PgR) status in stromal cells, as additional diagnostic criteria in assessing different types of PT.

Methods: Routinely processed, formalin-fixed and paraffin-embedded surgical specimens from 47 cases of PT were stained by immunoperoxidase technique using Ki-67, CD34, ER and PgR monoclonal antibodies. On the basis of histopathological criteria proposed by Azzopardi, 6 malignant, 12 borderline and 29 benign PT have been evaluated. The mean size of the tumour was 9.4 cm (range 2.8-20 cm). During the follow-up period (mean 50, range 2-127 months), recurrences were observed in 8 patients (17%).

Results: The proliferating index determined by Ki-67 antigen expression was significantly different between histologically benign PT (19%), borderline PT (25%) and malignant PT (50%). There was a difference of the human progenitor cell CD34 antigen expression in malignant PT (50%), borderline PT (50%) and benign PT (30%). As expected, the stromal cells in various types of PT were mostly ER negative and PgR positive.

Conclusions: Our preliminary results suggest that CD34 positivity and high proliferative index of Ki-67 antigen in stromal cells are more frequently associated with high grade PT. Therefore, the immunohistochemical features could provide better discrimination between different PT types. The prognostic implications of these observations should be evaluated in additional studies.

P-042

CYTOGENETICAL ANALYSIS OF 70 DUCTAL BREAST CARCINOMAS BY COMPARATIVE GENOMIC HYBRIDIZATION (CGH): PRELIMINARY RESULTS.

Zudaire M.I., Zozaya E.*, Calasanz M.J.**, Valentí C.*, Martínez-Peñuela J.M.***
Dpt. of Pathology, Hospital de Navarra*, Pamplona (Spain), and Dpt. of Genetics, Universidad de Navarra, Pamplona (Spain).**

Aims: The purpose of this study is to identify cytogenetic abnormalities in a group of ductal carcinomas using CGH, in order to determine the correlation between these data and known prognostic and diagnostic parameters.

Material and methods: DNA samples were obtained from formalin-fixed, paraffin-embedded tissues. Tumor and reference DNA were labeled by nick translation with Fluorescein-dUTP and Texas Red-dUTP. Negative and positive controls were included in each experiment. Other known parameters of breast cancer were studied (histological type/grading, tumor size, lymph node status, estrogen/progesterone receptors, bcl-2, c-erb-B2, Ki-67, angiogenesis grade/intensity).

Results: DNA sequence copy number changes were present in the first ten cases analysed. The most frequent aberrations were: losses of 1p, 11q21-qter (37% samples) and Xp, and gains in 8q (50% samples), 11q11-21 and 6q16-22.

Conclusions: Some of our CGH results have been frequently reported: gain of 8q (where c-myc and a possible and still undescribed oncogene in region 8q12-22 are affected), gain of 11q21-qter (the third most frequently amplified region in breast cancer, after MYC and ERBB2) and loss of 11q23 (whose loss of heterozigosity is linked to 5 times increased risk of disease). We have also found a rarely described amplification in 6q16-22 (2/10), that will be the subject of further study by FISH. Clinical correlations will be established when more cases are analysed.

P-043

MICROSCOPIC, ULTRASTRUCTURAL AND INMUNOHISTOCHEMICAL PROFELE OF CYSTIC ADENOID CARCINOMA OF THE BREAST.

Martínez Tello, D.; Moros García, M.; Castiella Muruzábal, T.; Arraiza Goicoechea, A.; Mena Gutiérrez, M. V.
Department of Hystopathology, Hospital Clínico Universitario, Zaragoza, Spain.

Aims: We present a case of cystic adenoid carcinoma of the breast on a 43 year old female patient.

Result: This woman complained of a three week history of a breast palpable mass; on mammograms there were signs of malignancy. FNA was diagnostic of carcinoma Cystic Adenoid. Gross: It was a solid, lobulated mass measuring 6 cm. Histology showed a cystic adenoid carcinoma, mainly cylindroid, with large solid areas where atypia was more pronounced (grade II of Ro. J. Y.). At the margin, ducts containing an in situ cystic adenoid carcinoma were also identified. Electron microscopy revealed the presence of epithelial and myoepithelial cells, among which there was membranous material. Immunohistochemisty studies: This tumour stained as follows: ER (-), PR (-), p53 (-), c-erbB-2 (+/-), Keratin (+) (epithelial cells), actin (+) (myoepithelial cells), S-100 (+) (epithelial-myoepithelial cells), type IV collagen (+) at the cystic adenoid areas, Ki-67 (+), more intense at the solid regions.

Conclusions: FNA is a suitable diagnostic tool for low grade cystic adenoid carcinomas, but not for the higher grade ones, where differential diagnosis between DCIS, variants of infiltrating ductal carcinoma and collagen microspherulosis must be made. Hormonal receptors are usually positive in low grade tumours, which is not our case. Although p53 was negative, we expect a poor evolution of thes particular tumour, due to Ki-67 overexpression, size the carcinoma and large solid areas..

P-044

OPTICAL, ULTRASTRUCTURAL AND INMUNOHISTOCHEMICAL PROFILE OF ADENOMYOEPITHELIOMA OF THE BREAST..

Moros García, M.; Martínez Tello, D.; Mena Gutiérrez, M.V.
Depto. of Histopathology, Hospital Clínico universitario, Zaragoza, Spain.

Aims: We present two cases of adenomyoepithelioma of the breast, studied with a combination of optical and electron microscopy, and immunohistochemistry.

Results: Two female patints aged 76 and 90 presented with a palpable breast tumour of 3 and 7 cm. respectively. FNA suggested carcinoma in one case. On section, both masses were solid with cystic areas. Histology showed tubular cystic adenomyoepithelioma with atypia, microcalcifications, and squamous and sebaceous differentiation. Electron microscopy confirmed the presence of two cellular lines (epithelialy-myoepithelial) in these neoplasms. Tubular epithelial cells showed ER(-), PR(-), p53(-),c-erbB-2(+/-), bcl-2(+), cytokeratin (+), S-100(+) patchily distributed, and EMA (+) in the apical pole. Myoepithelial cells were actin (+) and S-100(+) regardless of their volume, Ki-67 was low in both cases, specially in the one with more marked atypia.

Conclusions: The most suitable antisera for detection of the two cellular types in a case of adenomyoepithelioma are actin (myoepithelial), and cytokeratin (epithelial). S.100 identifies both types in an irregular fashion. We have found no use for determination of hormonal receptors, p-53, c-erbB-2 and EMA. There could be certain correlation between bcl-2, Ki-67 expression, nuclear atypia and tomour progression.