CYTOMORPHOLOGICAL FEATURES OF PARATHYROID GLANDS AT HYPERPARATHYROIDISM

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Introduction. Studies on the analysis of the vital signs of cytomorphological parathyroid glands in patients with hyperparathyroidism (HPT) are rare.

Aim. To study the cellular and structural features of parathyroid glands at HPT.

Methods. The study included 52 patients with primary, secondary and tertiary HPT. The analysis of 84 tissue fragments parathyroid glands obtained by fine-needle aspiration biopsy under the control of ultrasonography of the front of the neck. Used color azure-eosin by Pappenheim' method and examination under microscope.

Results. Most samples (81%) contained epithelial cells in sufficient quantity for cytological analysis. Established a heterogeneous population of cells of the glandular epithelium parathyroid glands. Dominated by the major dark paratirocytes — small polygonal shape with a diameter of 5–8 microns mononuclear cells with a narrow rim of cytoplasm of light basophil's stains that were located in small groups, single-layer recovery, multi-papillary structures. Less often (73%) were found larger main light paratirocytes 9–25 microns in diameter, round or polygonal shape and abundant clear cytoplasm. In some preparations (13%) were identified with large centrally located nucleus and the presence of near-nuclear enlightenment "stamped" cells. Oxyphilous paratirocytes were found in 8% of cytograms, arranged singly or in groups and had oxyphilous granules in the cytoplasm. In half of the samples was determined by a colloid-like extracellular secretion. Also determined dark polymorphic granules in the cytoplasm of epithelial cells and extracellular secretions. In secondary HPT in the tissue parathyroid glands more prevalent cytological signs of degenerative processes. Cytological features of parathyroid tissue clearly contrasted with those of the thyroid gland.

Conclusion. By cytomorphological criteria hyperplasia and functional activity parathyroid glands at HPT include: 1. cell population heterogeneity glandular 2. expression of cell-cell contacts in clusters paratirocytes 3. Availability dark polymorphic granules in the cytoplasm of epithelial cells and extracellular secretions. Cytological verification hyperplasia and high functional activity parathyroid glands enhances topical diagnosis at HPT.

THE ETIOLOGY OF OPPORTUNISTIC INFECTIONS IN PATIENTS WITH NON-HODGKIN'S LYMPHOMAS

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Objective: To study the etiological characteristics of opportunistic infections in patients with non-Hodgkin's lymphomas.

Material and Methods: We investigated 109 patients with non-Hodgkin lymphoma treated in the hematology hospital during the period 2006–2010. Conducted microbiological testing of biological materials of patients , followed by isolation and identification of a pure culture of the pathogen through the test systems and methods of ELISA and PCR.

Results: In the analysis of the etiologic spectrum of different localization OI non-Hodgkin's lymphoma was found the following: respiratory tract infections in patients NHL basis etiologic spectrum of bacterial infections were H. influenzae (62,9%), M. pneumoniae (51,6%), Streptococcus (30,6%). Of fungal infections dominated by representatives of the genus Candida (21,0%, of which C. albicans — 11,4%), while Aspergillus verified in 8.0% of patients. The greatest

value in patients with NHL is the viral infection , the frequency allocation Epstein-Barr virus 35,5%, Cytomegalovirus — 19,3%. Mixed infection stood at 79,0% of patients. For infections of the genitourinary system frequent pathogens were representatives of Staphylococcus (64,0%), among mycotic infections — C. albicans (28,0%). Markers of viral infections were positive for Epstein-Barr virus — 76,0%, mixed infections accounted for 92.0%. Infectious complications of gastrointestinal tract in patients with NHL were accompanied by the release of Enterococcus (52,9%), E. coli (58,8%), and Acinetobacter (58,8%). Generalized infectious complications (sepsis) in patients with NHL were verified in 5 patients and are bacterial (Streptococcus — 60,0%, H. influenzae - 60,0%, M. pneumoniae — 60,0%, Klebsiella — 40,0%), fungi (Aspergillus — 60,0%, Candida — 60,0%) flora, accompanied by positive markers for Epstein-Barr virus (80,0%), mixed infections — 100,0%.

Conclusions: The analysis of the data showed that in most cases, non-Hodgkin's lymphoma at the forefront respiratory infections caused by strains of H. influenza. Special attention should be patients with generalized infections , as the causative agent of sepsis supports the mixed infection (80–100% of cases).

BREAST CANCER AND EPSTEIN-BARR VIRUS INFECTION

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Objective: To investigate the existence retrospectively viral particles Epstein–Barr tissue mammary adenocarcinoma with the overall survival (OS) and disease-free survival (DFS), and in accordance with known prognostic factors (RE, RP, Her-2-neo, Ki–67).

dium grade (G2–3), as well as Her-2-neo overexpressing cancers and high index proliferation-related activity (Ki–67 > 50%). Summary data are shown in Table 1.

Total Adjusted 5-year survival of patients with breast cancer cases registered in 2007 was 74.57%.

Table 1. *Having EBNA - 1 as defined by IHC in breast cancer tissue with the TNM, G, Her-2-neo, Ki–67*

	T			N				G			Her2-neo +++	Ki-67 >50%
	1	2	3	0	1	2	3	1	2	3		
EBNA -1 +	3	8	4	0	5	7	3	0	6	9	20	23
EBNA -1 -	5	8	0	8	5	0	0	2	6	5	4	2
Всего	8	16	4	8	19	7	0	2	12	14	24	25

Materials and methods. The study included 28 women diagnosed with breast cancer in 2007. I–IIIB stage. The average age of the women (M ± SD) was 56±11,3 years. Determination of the presence of Epstein–Barr virus was carried out in paraffin-embedded archival histological material immunohistochemical (IHC) method manually. We determined the presence of nuclear antigen (EBNA-1) in tumor tissue.

Results. Found that in 15 out of 28 cases, which was 53.5 % revealed the presence of EBNA-1 in breast cancer cells. The viral genome has been detected in tumors of various sizes, but preferably in patients with metastases in the lymph nodes (N+) and high and me-

Adjusted disease-free 5-year survival of patients with breast cancer cases registered in 2007 was 64.63%. The average time to relapse-free period were stage I, 31,36±17,36 months for stage II – 28,48±18,37 months and for stage III – 21,19±11,37 months, respectively. No patient who has found EBNA - 1 in the tumor tissue is not lived for more than 3 years.

Conclusion. More than half (53.5 %) have the presence of Epstein–Barr virus, presented in the form of EBNA- 1 in breast cancer tissues. EBNA - 1 in the tumor tissue of breast cancer can be considered as one of the predictor. This fact requires further study.