

⁵ Bioaxiome-Inovie, Laboratoire de Biologie Institut du Cancer Avignon-Provence, France

Pts with HM may have low or delayed specific immune response after usual vaccination due to immune deficiency, associated to the disease or to the therapy. In this real-life study, 235 pts vaccinated with BNTCV (BioNTech Pfizer) were monitored for 2 years, starting 06/20 in a single Institution. Patients' population and follow-up. 235 patients including 225 with HM initially received 2 doses of BNTCV (IM) with 3 weeks between the 2 first doses, including 98 lymphomas (L), 28 monoclonal gammopathies with undetermined significance (MGUS), 34 multiple myelomas (MM), 34 myeloproliferative disorders (MPD), 27 chronic lymphocytic leukemias (CLL), 4 acute leukemias and 10 non-malignant hemopathies. The first 43 pts had initial follow-up by telemedicine system connecting the pt to the Institute, developed by La Valeriane Inc. (Montpellier, France), 24/24h, 7 days. Seroconversion was assessed by analyzing IgG anti-Spike protein antibody (AcAS) every 3-4 weeks after the first vaccination and then, every 3-4 months, by SARS-CoV-2 IgG II Quant[®] Assay (Abbott, France) and Elecsys[®] Anti-SARS-CoV-2 S (Roche Diagnostics, France), in duplicate with the 2 assays, by 2 independent labs. Additional boosts of vaccine were administered in case of seronegativity or when the level of antibody was <7 BAU/mL. Pts not seroconverted after 4-5 doses of vaccine received tixagevimab/cilgavimab (EVUSHELD[®], AstraZeneca). Tolerance using telemedicine application. Local pain (<1 day) was common and transient, particularly after the 2nd dose. 4/43 pts reported significant adverse events through telemedicine, followed by a medical call, including severe asthenia for ≥2 days, fever (>38° C) for at least 2 days, headache, or general pain. The satisfaction survey of monitoring system was good. Adherence to vaccination was excellent (only one refusal/235 pts). AcAS follow-up 15 Results were discordant (12 with Abbott +, Roche -, and 3 with Abbott - Roche +). Semi-quantitative rapid test (BIOSIS HEALING, Beijing China) was compared to Abbott with good concordance on 97 samples. After 2 doses of BNTCV, 72% of the pts were seroconverted, (median, range) (59, 3-319) BAU/mL, Abbott), including 62% CLL (121), 66% L (39), 91% MGUS (204), 61% MM (15) and 81% SMD (50). 50% of the pts receiving daratumumab (median 8 BAU/mL, 1-20) and only 38% of the pts receiving rituximab (median 0, 0-20) were seroconverted, as compared to 71% of the pts receiving other treatment or 80% (42, 2-210) with no therapy (161, 29-637) ($p < 0.001$). Low gammaglobulin levels (<5g/L, $p = 0.019$), similarly to the IgG level were associated with reduced seroconversion. Median levels of AcAS were 1679 BAU/mL post 2nd dose if seroconverted after the 1st dose and 308 if seroconverted only post 2nd dose. 68% of the pts negative after the 2nd dose were positive after the 3rd dose. 16 pts received tixagevimab/cilgavimab, 6 having symptomatic non-severe COVID-19 in the 15-40 days after the injection. There is a need to follow AcAS (including with rapid test) for pts having HM after BNTCV to adapt vaccine strategy including boosts or EVUSHELD. The usage of telemedicine connecting system may help to follow the early tolerance and to improve the pts' adherence.

ONCOLOGY

PP15

IMMUNOPHENOTYPIC FEATURES OF MOLECULAR SUBTYPES OF BREAST CANCER

S.V. Chulkova^{1,2}, I.V. Poddubnaya³,
N.N. Tupitsyn¹

¹ N.N. Blokhin National Medical Research Center of Oncology, Ministry of Health of Russia 115478, Moscow, Kashirskoye shosse, 24

² Pirogov Russian National Research Medical University Ministry of Health of Russia 117997 Moscow, Ostrovityanova str., 1a

³ FSBEI DPO RMANPO, Ministry of Health of Russia FSBEI DPO RMANPO, Ministry of Health of Russia, 125993, Moscow, st. Barrikadnaya, 2/1, bld.1

Introduction: Currently, immunotropic drugs are used in the modern strategy of cancer treatment. Importance is given to immunological markers of the tumor, which may be associated with the prognosis of the disease, the effectiveness of treatment. Therefore, the study of tumor immunophenotype is one of the leading scientific directions. Of particular interest is the study of the immunophenotypic characteristics of breast cancer depending on its biological subtype. **Purpose:** to evaluate the frequency of expression of HLA-I, HLA-II, CD71, MUC1,0 Pgp170 molecules by breast cancer cells and determine their relationship with the molecular biological subtype of the tumor. **Materials and methods:** This study included 120 patients with breast cancer who received treatment at the Federal State Budgetary Institution "N.N. Blokhin" Ministry of Health of the Russian Federation. Tumor stages II and III prevailed: 56.7% and 33.4%, respectively. A moderate degree of differentiation (G2) was more often noted. The luminal subtype was 58.3% (n=70), non-luminal - in 41.7% (n=50). Immunophenotyping of the primary tumor was performed by immunofluorescence on cryostat sections. The reaction was evaluated using a ZEISS luminescent microscope (AXIOSKOP; Germany). The frequency of expression of HLA-I and class II molecules was studied depending on the clinical and morphological characteristics of breast cancer. The frequency of expression of HLA-I, HLA-II, CD71, MUC1.0 Pgp170 molecules depending on the molecular subtype of breast cancer was studied. **Results:** The absence of molecules of the major histocompatibility complex of class I and II on breast cancer cells was found in 89.6% of the samples. In 23.4% of cases, their monomorphic expression was observed. In the luminal subtype, HLA-II class molecules were expressed somewhat more often: in total, mosaic and monomorphic types of reactions were observed in 30.5% (20/65) of cases. With non-luminal - 20.0% (10/47) of cases. The frequency of expression of the transferrin receptor is significantly higher in the luminal subtype than in the nonluminal subtype: 85.9% (n=5) and 65.2% (n=30), $p = 0.011$. Luminal breast cancer cells express transferrin receptors predominantly

monomorphically: 75.4% (n=49) versus 43.5% (n=20) in the non-luminal subtype, $p=0.003$. The percentage of monomorphically expressing MUC1 tumors is higher in luminal cancer: 83.3% (n=35) versus 65% (n=26) in the non-luminal subtype. Expression of Pgp70, namely monomorphic, is more often observed in luminal breast cancer. **Conclusion:** Luminal breast cancer is characterized by unfavorable prognostic immunophenotypic features. In the luminal subtype, expression of CD71 is more often observed, predominantly monomorphic. In the non-luminal subtype, expression of Pgp 170 is observed less frequently. No statistically significant differences between the molecular subtypes in terms of the level of expression of HLA-I and class II molecules were found.

<https://doi.org/10.1016/j.htct.2022.09.1222>

CHRONIC LEUKEMIAS

PP16

INFECTIOUS COMPLICATIONS IN CHRONIC LYMPHOCYTIC LEUKEMIA – CHALLENGING ISSUES OF HEMATO-ONCOLOGY

Vasile Musteata¹, Larisa Musteata¹, Dana Coman¹

¹ State University of Medicine and Pharmacy “N. Testemitanu”, Institute of Oncology

Objective: The aim of the study was to identify the diagnosis features and origin of the infectious complications in chronic lymphocytic leukemia (CLL). **Methodology:** Our observational study enrolled 82 patients (pts) with different CLL phases, who were managed at the Institute of Oncology of Moldova from 2000 to 2022. The pts age ranged between 45-86 years (median age 66.2 years). There were 47 (57.3%) males and 35 (42.7%) females. The diagnosis was proved by histopathological, immunohistochemical, cytological and immunophenotyping examinations. We used IWCLL criteria on a basis of lymphoid cells rate in the blood count and bone marrow aspirate. **Results:** According to Binet classification, stage A was revealed in 54 (65.9%) pts, stage B – in 28 (34.1%). Infectious complications developed in 36 (43.9%) cases. Respiratory bacterial infections were diagnosed in 29 (80.6%) pts, commonly comprised the relapses of chronic bronchitis - in 11 (30.6%) and acute pneumonia - in 10 (27.8%). Herpetic infection was diagnosed in 2 (5.6%) cases. Other infectious complications included nephro-urinary tract in 3 (8.2%) pts and acute otitis in 2 (5.6%). Fatal outcomes occurred in 16 (19.5%) pts, including 6 (37.5%) with infections, 5 (31.3%) with CLL progression. **Conclusion:** The infectious complications proved to be the common manifestations and causes of death in CLL, especially in stage B.

<https://doi.org/10.1016/j.htct.2022.09.1223>

PEDIATRIC HEMATOLOGY ABSTRACT CATEGORIES

COAGULATION AND FIBRINOLYSIS DISORDERS

OP 17

THE EFFECT OF THE COVID-19 PANDEMIC PROCESS ON TREATMENT COMPLIANCE IN HEMOPHILIA PATIENTS

Şifa Şahin¹, Serap Karaman¹, Yasin Yılmaz¹, Mustafa Bilici¹, Saadet Aslan¹, Hikmet Gülşah Tanyıldız¹, Deniz Tuğcu¹, Zeynep Karakaş¹, Ayşegül Ünüvar^{1,2}

¹ Istanbul University Faculty of Medicine
Department of Pediatric Hematology Oncology

² Istanbul University Faculty of Medicine

Objective: It is known that there were transportation problems to the hospital and treatment experienced in many disease groups during the pandemic process. The negative impact of the pandemic is particularly evident in chronic diseases and in situations that require continuous treatment. In this study, data on access to treatment and disease status in patients with bleeding diathesis were collected by questionnaire method, and the effects of the pandemic on these patients were determined. **Methodology:** Fifty patients who were followed up in Istanbul Medical Faculty Pediatric Hematology-Oncology Department between 2010-2022 with the diagnosis of bleeding diathesis and accepted to participate in the survey were included in the study. Questions were answered by telephone. Responses were analyzed using SPSS. **Results:** The mean age of the patients in our study was 13 years, the age range was between 2-26 years. The median age was 13. Of these patients, 44 (88%) were male and 6 (12%) were female. 88% of the patients were diagnosed with Hemophilia A, 12% with Hemophilia B. While 56% of the patients were receiving prophylaxis for the treatment of hemophilia, 44% were receiving treatment in case of bleeding. Sixtyfour percent of the patients went to a health institution or doctor once every 1-3 months, 18% every 6 months, 6% once a year for control and follow-up purposes. The last drug or dose change was made 0-6 months ago in 16% of the patients, 7-12 months ago in 4%, and 22% 1-2 years ago. However, in 6%, more than 2 years had passed since the last change, and 42% did not change. Serious psychiatric problems were observed in our two patients. Fear of death and anxiety disorder has been seen in a 10-year-old patient. During this period, severe hyperactivity developed in 1 patient. While 10% of the patients interrupted their treatment in the last 3-4 months, 90% did not. The reason for the disruption of the patients who interrupt their treatment is Covid infection in 20% and the drug cannot be obtained in 40%. While 94% of the patients had no problem in the supply of the drug due to the Covid-19 pandemic, 6% had a problem in the supply of the drug. While 33% of the patients who had problems in the supply of the drug received support from their doctor, 33% from the patient association to solve the problem, 33% did not receive any support from anyone. Among the reasons for having problems in