prior exposure. Risk may be underestimated due to limited duration of LVEF monitoring after EPOCH initiation, although the low rate of clinically evident cardiac events supports the safety of EPOCH despite prior bolus anthracycline therapy.

Keywords: Late Effects in Lymphoma Survivors, Aggressive B-cell non-Hodgkin lymphoma, Aggressive T-cell non-Hodgkin lymphoma

Conflicts of interests pertinent to the abstract

S. M. Horwitz

Consultant or advisory role: ADCT Therapeutics, Aileron, Corvus, Forty-Seven, Innate Pharma, Kyowa-Hakka-Kirin, Millenium/Takeda, Mundipharma, Portola, Seattle Genetics

Research funding: ADCT Therapeutics, Aileron, Celgene, Forty-Seven, Infinity/Verastem, Kyowa-Hakka-Kirin, Millenium/Takeda, Seattle Genetics, Trillium

M. J. Matasar

Consultant or advisory role: Genentech, Bayer, Merck, Juno, Roche, Teva, Rocket Medical, Seattle Genetics

Honoraria: Genentech, Roche, Bayer, Pharmacyclics, Janssen, Seattle Genetics, GlaxoSmithKline

Research funding: Genentech, Roche, GlaxoSmithKline, Bayer, Pharmacyclics, Janssen, Rocket Medical, Seattle Genetics

Educational grants: Genentech, Roche, Seattle Genetics, Bayer

282 | BURDEN OF LYMPHOMA IN CHINA, 1990–2019: AN ANALYSIS OF GLOBAL BURDEN OF DISEASES, INJURIES, AND RISK FACTORS STUDY 2019

 $\underline{\text{W.Liu}}^1$, J. Liu², Y. Song¹, X. Wang¹, L. Mi¹, C. Cai³, D. Zhao⁴, L. Wang², J. Ma⁴, J. Zhu¹

¹Peking University Cancer Hospital & Institute, Department of Lymphoma, Beijing, China, ²National Center for Chronic and Noncommunicable Disease Control and Prevention, Chinese Center for Disease Control and Prevention, National Center for Chronic and Noncommunicable Disease Control and Prevention, Beijing, China, ³Beijing Institute of Survey and Mapping, Beijing Municipal Key Laboratory of Urban Spatial Information Engineering, Beijing Institute of Survey and Mapping, Beijing, China, ⁴Harbin Institute of Hematology & Oncology, Harbin Institute of Hematology & Oncology, Harbin, China

Background: China is facing the aggravating disease burden of lymphoma. However, the accurate information about lymphoma burden at national and provincial levels is limited.

Methods: Following the general analytical strategy used in Global Burden of Diseases, Injuries, and Risk Factors Study 2019, the age-, sex- and province-specific incidence, mortality and prevalence of Hodgkin lymphoma (HL) and non-Hodgkin lymphoma (NHL) were analyzed. Lymphoma burden was assessed by methods of incidence, mortality, prevalence and disability-adjusted life years (DALYs).

Results: The estimated number and age-standardized rates of DALYs per 100,000 population were 86,171.85 and 4.95 for HL, and 1,306,247.77 and 71.00 for NHL, respectively. There were estimated 9,470 new cases and 2,710 deaths of HL, and 91,950 new cases and 44,310 deaths of NHL. Older individuals had higher lymphoma burden with a peak of the age-specific DALYs rates reached at the age group 70-74 for both HL and NHL. The age-standardized DALYs rates in males was about 2 folds higher than that in females. Moreover, disparities in lymphoma burden was observed across provinces. Between 1990 and 2019, the burden of HL kept a downward trend with a decrease of 57.8% in the DALY number and 74.4% in the age-standardized DALYs rates, while the burden of NHL aggravated with an increase of 100.9% in the DALY number and 15.6% in the age-

Conclusion: Burden of lymphoma showed heterogeneous change pattern varied by sex, age, and provinces, with a steady improvement for HL and a fluctuant change for NHL.

Keywords: Hodgkin lymphoma, Non-Hodgkin (Pediatric, Adolescent, and Young Adult)

No conflicts of interests pertinent to the abstract.

standardized DALYs rates.

283 | IMPACT OF THE COVID-19 PANDEMIC ON THE DIAGNOSIS OF MATURE LYMPHOID NEOPLASMS IN BELGIUM: RESULTS FROM THE BELGIAN CANCER REGISTRY

<u>H. Antoine-Poirel</u>¹, F. Calay¹, T. Tambuyzer¹, P. Denolf¹, L. Van Eycken¹

¹Belgian Cancer Registry, BCR, Brussels, Belgium

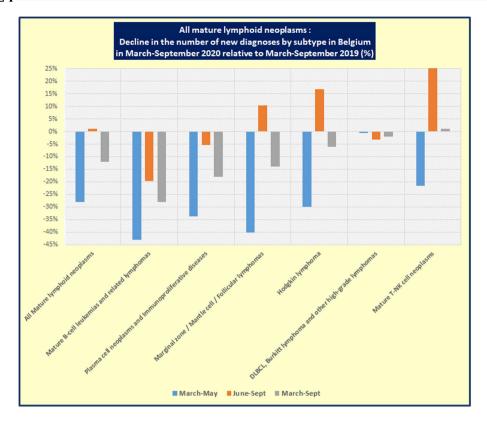
Introduction: Health care in Belgium was affected by the corona pandemic and the corresponding measures taken by the government since March 2020. The aim of this study is to make an estimate of the decrease in the number of new diagnoses of mature lymphoid neoplasms (MLN) due to the COVID-19 crisis in Belgium.

Methods: For its standard cancer reporting, the Belgian Cancer Registry uses two data sources:

- The oncological care programs from the hospitals provide structured data ('clinical network')
- The pathology laboratories deliver structured files and reports ('pathology network')

Thanks to expedited deliveries of data by the pathology network between January and September 2020, the Belgian Cancer Registry was able to make an estimation of the decline in the number of diagnoses by types of MLN.

Since estimates were only based on pathology data and to prevent bias, all results are shown as a relative ratio between the new cancer diagnoses for incidence years 2020 and 2019. The ratios for the months January and February, both prior to the start of the COVID-19 pandemic, were expected to be around 100%. Decline = ratio -100%.



Results: After a strong decline by 28% during the first wave (March-May 2020) when compared to March-May 2019, the total diagnosis of MLN reported by the pathology network stabilized around normal values compared to 2019 levels, leading to an incomplete recovery by end September 2020 (-12%).

Variable effect by age group

Although the 2 adult age groups, 20-79 vs 80+, exhibited the same reduction of 28% during the March-May period, a partial recovery was observed for the 20-79 age group (+4%) during the following June-September period while the older population showed a persistent reduction (-9%), leading to an overall decline of 16% for the 80+ compared to 10% for the 20-79 age group.

Although subject to a low number of cases, there was no evidence of a decline in children and adolescents up to 19 years of age.

Variable effect by MLN type

Among B-cell MLN, the largest decrease by September was observed for mature B-cell leukemias (March-Sept: -28%; March-May: -43%). The decrease was smaller for plasma cell neoplasms (-18%; -34%), other indolent lymphomas (-14%; -40%) and Hodgkin lymphoma (-6%; -30%) while no evidence of decline for the more aggressive MLN (DLBCL and Burkitt lymphoma), except for 80+(March-Sept: -13%).

The strongest rebound in diagnosis was observed for mature T/ NK cell lymphomas which completely recovered to above 2019 levels (March-May: -22%, June-Sept: +25%).

Conclusion: This study with pathology data available until the end of September suggests a heterogeneous impact of the COVID19 crisis on the different types of MLN. The largest persistent declines are observed for the more indolent MLNs, while the effect was very

limited for the high-grade B-cell lymphoid neoplasms, with exception of the older population.

The impact over the whole year 2020 will be presented during the meeting.

The research was funded by: Belgian Fondation Against Cancer

Keywords: Cancer Health Disparities, Pathology and Classification of Lymphomas

No conflicts of interests pertinent to the abstract.

284 | IMPAIRED HUMORAL RESPONSE IN LYMPHOMA PATIENTS SURVIVING THE ACUTE PHASE OF COVID-19

<u>C. Cattaneo</u>¹, V. Cancelli¹, C. Pagani¹, A. Ogna¹, A. Tucci¹, G. Rossi¹, V. Quaresima², A. Sotttini², K. Dobbs³, L. D. Notarangelo³, J. I. Cohen⁴, P. D. Burbelo⁵

¹ASST-Spedali Civili, Hematology, Brescia, Italy, ²CREA (Centro Ricerca AIL), ASST Spedali Civili di Brescia, Diagnostic Department, Brescia, Italy, ³National Institute of Allergy and Infectious Diseases, National Institutes of Health, Laboratory of Clinical Immunology and Microbiology, Bethesda, Maryland, USA, ⁴National Institute of Allergy and Infectious Diseases, National Institutes of Health, Laboratory of Infectious Diseases, Bethesda, Maryland, USA, ⁵National Institutes of Health, National Institute of Dental and Craniofacial Research, Bethesda, Maryland, USA

Introduction: The ability to generate an adequate and durable immune response to SARS-CoV-2 in B-cell lymphoma patients (pts) treated with immunochemotherapy is still unclear. We monitored