

# **Efficacy and safety of immunochemotherapy in treatment of follicular Nonhodgkin's lymphoma during COVID-19 pandemic: a study of KroHem, the Croatian cooperative group for hematologic diseases**

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## P1110 EFFICACY AND SAFETY OF IMMUNOCHEMOTHERAPY IN TREATMENT OF FOLLICULAR NON-HODGKIN'S LYMPHOMA DURING COVID-19 PANDEMIC: A STUDY OF KROHEM, THE CROATIAN COOPERATIVE GROUP FOR HEMATOLOGIC DISEASES

**Topic:** 18. Indolent and mantle-cell non-Hodgkin lymphoma - Clinical

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### Background:

Follicular lymphoma (FL) is a systemic neoplasm of the lymphoid tissue arising from B cell proliferation. The novel monoclonal anti-CD20 antibody obinutuzumab in combination with chemotherapy has been widely accepted as the first choice in front line treatment of FL. Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), responsible for coronavirus disease 2019 (COVID-19) is causing increased mortality among patients with lymphoproliferative disorders compared with the general population. Furthermore, there are some concerns in terms of morbidity and mortality for patients with FL because of their immunocompromised status induced by recent exposure to cytotoxic chemotherapy, especially bendamustine and anti-CD20.

**Aims:** To investigate efficacy and safety of immunochemotherapy protocols for patients with newly diagnosed FL during COVID-19 pandemic.

**Methods:** We retrospectively investigated medical data of all patients with newly diagnosed FL grade 1, 2 or 3A from Croatian hematologic registry in period from April 2019 to March 2021. Only patients which required systemic treatment were included in the analysis. All patients received obinutuzumab (G) in combination with either CHOP, bendamustine (B) or CVP chemotherapy protocol. Treatment response was evaluated using international lymphoma response criteria.

**Results:** We analyzed a total of 114 FL patients treated with G-chemotherapy. Mean age was 62.4 ±10.5 years. Majority of patients were female (71/114 (62.3%)). FL grade I was present in 45/114 (39.5%), grade II in 28/114 (24.6%), grade III in 27/114 (23.7%) and not specified (but not IIIB) in 14/114 (12.3%) patients. A total of 61/114 (53.5%) patients were treated with G-B, 49/114 (43%) with G-CHOP and 4/114 (3.5%) with G-CVP immunochemotherapy. Similar rates of adverse events were observed in patients treated with G-CHOP and G-B. Median follow up was 17 months. Overall response rate was 94%, complete remission (CR) in 68% and partial remission (PR) in 25% of patients. Median overall survival (OS) and progression free survival (PFS) were not reached with 12-months rates of 94% and 92%, respectively. Patients treated with G-CHOP had statistically significantly superior OS and PFS compared to patients treated with G-B (P=0.002 and P=0.006, respectively, Fig. 1). More favorable survival course associated with G-CHOP in comparison to G-B persisted in multivariate analysis (P=0,026, HR=15,12) after adjustment for age, sex, FLIPI grade and SARS-CoV-2 infection. Total of 12 patients died during the follow up and COVID-19 was cause of death in 5 patients. During the follow-up SARS-CoV-2 infection

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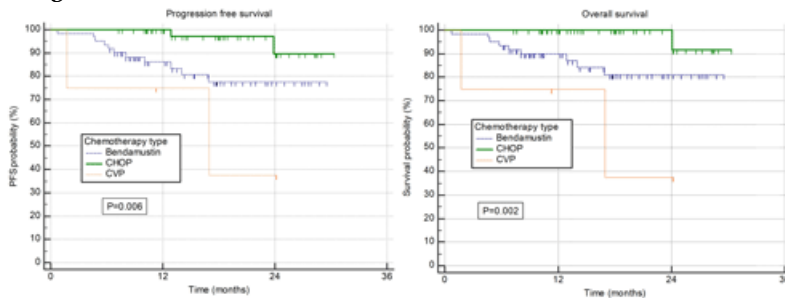
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was diagnosed in 20/114 (17,5%) patients with overall mortality rate of 25%. All of the 7 patients treated with G-CHOP recovered from SARS-CoV-2 infection and mortality rate in infected group of patients treated with G-B was 33% (4/12 patients).

Image:



### Summary/Conclusion:

Increased COVID-19 mortality in patients with lymphoproliferative disorders was observed in this study. Our group of patients had reduced OS and PFS compared to the GALLIUM trial and SARS-CoV-2 infection was the most pronounced risk factor for death. Even though in some studies bendamustine has shown to be less toxic and more effective than CHOP in FL, there are some important pandemic aspects that must be considered. Bendamustine exposure seems to be associated with worse outcome in case of the infection with SARS-CoV-2. These intriguing differences could play important role in treatment approach in COVID-19 pandemic. Future studies investigating hematological malignancies in COVID-19 pandemic are warranted.

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