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POSTER ABSTRACTS

902.HEALTH SERVICES AND QUALITY IMPROVEMENT - LYMPHOID MALIGNANCIES

R-CHOP Versus CHOP-R: Influence of Rituximab Timing on Real-World Outcomes in Patients with Diffuse Large B Cell Lymphoma

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Diffuse large B cell lymphoma (DLBCL) is the most common aggressive lymphoma and is conventionally treated with the chemotherapy regimen R-CHOP (rituximab, cyclophosphamide, doxorubicin, vincristine, and prednisone). The major clinical trials of R-CHOP administered rituximab on the same day as CHOP chemotherapy (R-CHOP). However, in real-world community oncology settings physicians often delay rituximab treatment until after chemotherapy is complete (CHOP-R). This is due to both concerns about drug reimbursement rates in the hospital versus outpatient setting and toxicity considerations. In particular, there is anecdotal evidence and limited retrospective data (Hannawa et al, J Oncol Pharm Pract 2011) that infusion reactions with rituximab may be lessened if rituximab administration is delayed until after CHOP chemotherapy. The current study aims to compare the incidence of infusion reactions, tumor lysis syndrome (TLS), and treatment efficacy in a retrospective cohort of DLBCL patients who received rituximab administration before chemotherapy (R-CHOP) versus those who received it after chemotherapy (CHOP-R).

In the current study, we reviewed 178 adult patients with DLBCL who received R-CHOP or CHOP-R between 9/1/2011 and 9/1/2021 at our institution. Treatment groups were defined based on the treatment received during the first cycle of chemotherapy. Patients were identified and data was extracted from electronic health records using Epic's SlicerDicer tool and integrated with data from manual chart review. A two-tailed Fisher's exact test with a significance level of 0.05 was used to analyze 2x2 tables describing the incidence of infusion reactions and tumor lysis syndrome.

The study cohort consisted of 178 patients including 139 patients (78%) in R-CHOP group and 39 patients (22%) in CHOP-R group. The median age at diagnosis was 65 years (range 22-92) in the R-CHOP group and 72 years (range 29-86) in the CHOP-R group. The R-CHOP group was approximately evenly split between female (51%) and male (49%), however the CHOP-R group was mostly male (69%). Double hit status was known in 96 patients (3 patients positive and 93 patients negative) in the R-CHOP group and 34 patients (4 patients positive and 30 patients negative) in the CHOP-R group. More patients in CHOP-R group had stage III/IV lymphoma (82%) as compared to the R-CHOP group (61%). HIV associated lymphoma at the time of diagnosis was reported in 3 patients in R-CHOP group vs 1 patient in CHOP-R. Median rituximab -containing cycles received in R-CHOP group were 6 (range 1-6) and CHOP-R group were 5 (range 1-6).

We examined the incidence of acute infusion reactions within 24 hours of rituximab administration during the first cycle of chemotherapy. Symptoms/signs of infusion reactions that we examined included fever, chills, rigors, hypotension, hypertension, hypoxia and tachycardia. Patients who did not have adequate data available were excluded from analysis. A total of 29% of patients in the R-CHOP group experienced any infusion reaction as compared to 21% of patients in the CHOP-R group.

Data on the incidence of TLS, defined as per the Cairo-Bishop criteria, was collected. Patients who had limited laboratory data available were excluded from analysis. A total of 12% of patients in the R-CHOP group experienced TLS as compared to 17% in the CHOP-R group (p=0.52). Most TLS was present prior to the initiation of treatment.

In conclusion, our study found no statistically significant difference in the incidence of acute infusion reactions or tumor lysis syndrome when rituximab administration is delayed. Data on efficacy and survival outcomes will be presented.

Disclosures No relevant conflicts of interest to declare.

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