

Abstract: P1520

Title: PROGNOSTIC IMPACT OF FEBRILE NEUTROPENIA AND DOSE INTENSITY OF R-CHOP THERAPY IN PATIENTS WITH DIFFUSE LARGE B-CELL LYMPHOMA, A SUPPLEMENTARY ANALYSIS OF JCOG0601

Abstract Type: Poster Presentation

Session Title: Infections in hematology (incl. supportive care/therapy)

Background:

Febrile neutropenia (FN) following chemotherapy is a potentially fatal complication, and subsequent treatment is often discontinued or reduced if FN occurs. A previous meta-analysis has demonstrated that reducing the dose of R-CHOP therapy less than the planned dose or prolonging the treatment interval implies a reduction in relative therapeutic intensity, resulting in poor treatment outcomes. In cases that developed FN after R-CHOP therapy but does not attenuate dose intensity (DI), the prognostic impact of FN has not been elucidated.

Aims:

We investigated whether the development of FN and relative DI (RDI) affect progression-free survival (PFS) and overall survival (OS) in JCOG0601 for untreated patients with diffuse large B-cell lymphoma.

Methods:

All eligible patients enrolled in JCOG0601 were included in the analysis (n=204 in arm A; 8 cycles CHOP-21 with 8 doses of rituximab once every 3 weeks and n=205 in arm B; 8 cycles CHOP-21 with 8 doses of weekly rituximab). The entire cohort was divided into four groups according to the presence or absence of FN and RDI $\geq 85\%$. Group 1 (FN+, RDI of doxorubicin (DOX) or cyclophosphamide (CPA) $< 85\%$) was used as the control arm for analysis with group 2 (FN+, RDI of DOX and CPA $\geq 85\%$), 3 (FN-, RDI of DOX or CPA $< 85\%$), and 4 (FN-, RDI of DOX and CPA $\geq 85\%$).

Results:

RDI in arm A was CPA: 95.5% (range: 13.3-102.9%), DOX: 95.5% (range: 54.1-101.8%), and the RDI in arm B was CPA: 98.8% (range: 63.2-102.4%) and DOX: 98.8% (range: 62.5-102.4%). Forty-nine patients were classified in group 1, 67 in group 2, 27 in group 3, and 264 in group 4. There were no meaningful background differences among the four groups. The 5-year PFS were 73.5% (95% CI, 58.7-83.6%) in group 1, 80.6% (95% CI, 68.9-88.2%) in group 2, 61.0% (95% CI, 39.4-76.9%) in group 3, and 77.8% (95% CI, 72.2-82.5%) in group 4, respectively. The 5-year OS were 80.8% (95% CI, 66.2-89.5%) in group 1, 88.9% (95% CI, 78.0-94.6%) in group 2, 77.2% (95% CI, 56.0-89.1%) in group 3, and 86.1% (95% CI, 81.1-89.9%) in group 4, respectively. On univariable analysis, group 2 and group 4 had significantly better OS compared to group 1, while no significant difference was observed in PFS. There was no significant difference in groups 2, 3, and 4 compared to group 1 on multivariable analysis for PFS and OS.

Summary/Conclusion:

This study suggests that the attenuation of RDI rather than the presence of FN may have an impact on prognosis. Even in the presence of FN, the continuation of subsequent treatment without the attenuation of RDI may be associated with a better prognosis.

Figure1 Progression Free Survival (Kaplan-Meier)

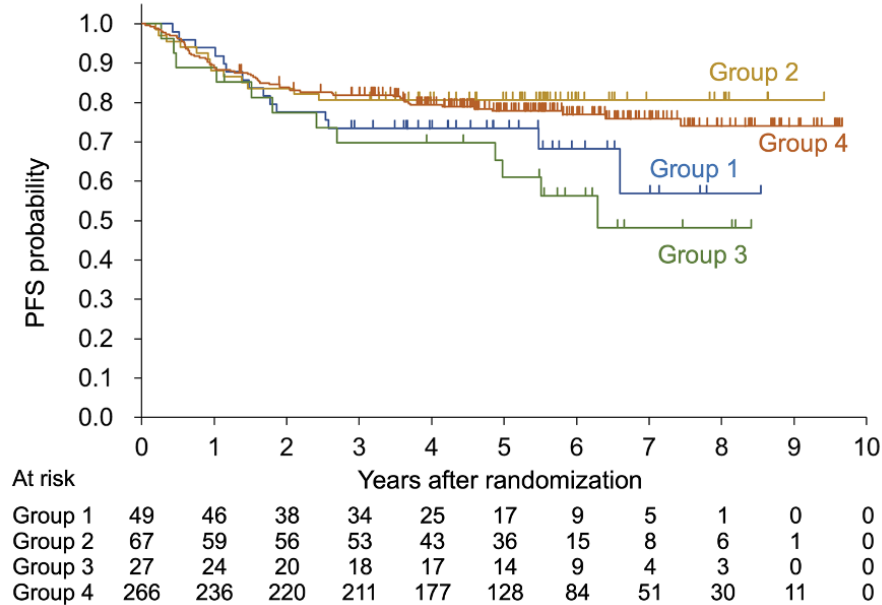
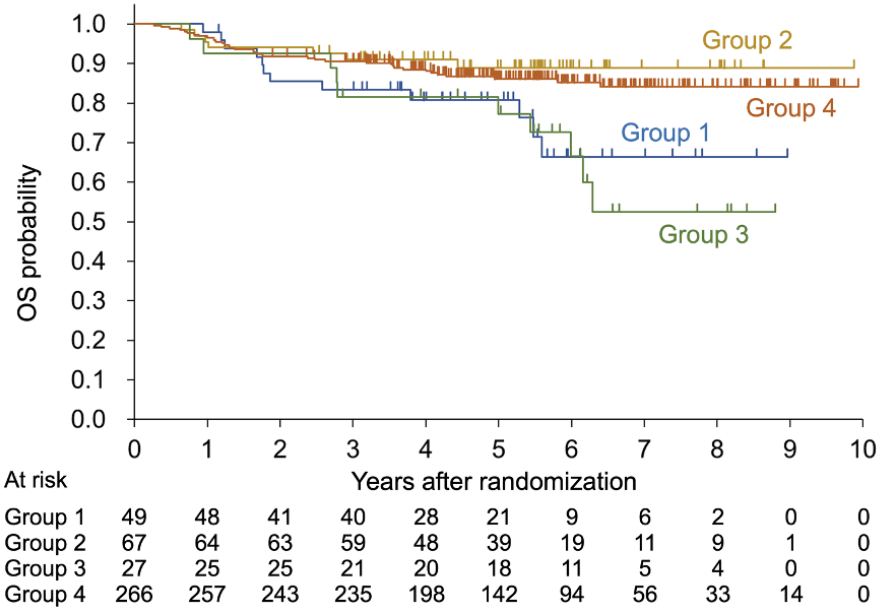


Figure2 Overall Survival (Kaplan-Meier)



Keywords: Febrile neutropenia, Cyclophosphamide, Doxorubicin, DLBCL