Lymphoma - Large cell lymphoma and diffuse large cell lymphoma

Andrew Zelenetz, MD, PhD
Vice Chair Medical Informatics, Department of Medicine and Medical Director
Memorial Sloan Kettering Cancer Center

TRANSCRIPT

Diffuse large B-cell lymphoma is the most common lymphoma seen around the world. It represents anywhere from 30 to 60% of the lymphoma seen in different areas of the world. However, diffuse large B-cell lymphoma is not a single disease, it's a family of diseases who look alike under the microscope but in fact are molecularly distinct diseases with different outcomes.

The three most important diffuse large B-cell lymphomas are diffuse large B-cell lymphoma of germinal center, diffuse large B-cell lymphoma of activated B-cell origin and primarily mediastinum large B-cell lymphoma. These diseases, though, potentially treatable with rituximab and CHOP, in my opinion, are not appropriately treated all the same way.

Primary mediastinum B-cell lymphoma is a disease primarily of younger women and it's molecularly closely related to Hodgkin's lymphoma. The treatment is with intensive chemotherapy regimens such as dosage of R-EPOCH or R-CHOP followed by ICE chemotherapy in a sequential way, are associated with excellent high levels of cured outcome in the excess of 80%.

Diffuse large B-cell lymphoma of the germinal center are from an activated B-cell origin. The standard care from around the world remains as rituximab and CHOP chemotherapy. However, there are number of drugs who appear to have differential effects on these two
entities. Activated B-cell Diffuse Large B-cell lymphoma has unusual sensitivity to a drug called ibrutinib, as well as a drug called lenalidomide. There are important going trials that are evaluating the role of these agents in the first line therapy. Therefore, if a clinical trial is available evaluating these agents, it is most appropriate to participate in them if you have the right type of lymphoma.

The germinal center diffuse large B-cell lymphomas, as I said, can be treatable with rituximab and CHOP. However, there is a suggestion that a more intensive regimen such as dosage of R-EPOCH may actually have superior outcomes. However, the definitive randomized trial evaluating this question is awaiting final analysis, and will hopefully have results in December 2016.