

Gemtuzumab ozogamicin monotherapy is a well-tolerated palliative chemotherapy option in pediatric multiply relapsed acute myeloid leukemia: a multi-center case series and review of the literature

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May 22, 2023

Abstract

Gemtuzumab ozogamicin (GO) is an anti-CD33 antibody that is FDA approved in upfront acute myeloid leukemia (AML) for patients over 1 month-old, and for relapsed or refractory AML in patients over 2 years-old. GO is now integrated in upfront pediatric AML treatment, and often in CD33+ relapse treatment combined with intensive conventional chemotherapy. Although GO was initially tested as a monotherapeutic agent in relapsed or refractory AML ([1](#ref-0001) · [2](#ref-0002)), there are few data in pediatric patients supporting this indication. In this review, we report 4 cases of multiply relapsed pediatric AML patients that were treated with GO monotherapy with palliative intent. Three out of 4 patients obtained a complete response with GO re-induction, either as monotherapy or paired with conventional chemotherapy. Three patients remained in remission respectively for 5, 17, and 9 months with GO continuation monotherapy. The literature was reviewed regarding the use of GO in pediatric AML relapse settings.

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