

# Successful Treatment of Refractory Graft Versus Host Disease with Ruxolitinib in a Child After Autologous Stem Cell Transplantation

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## Abstract

Autologous hematopoietic stem cell transplantation(AHSCT) is an increasingly used curative treatment for some solid tumors in children. Instead of allogeneic transplantation, the risk of developing graft versus host disease (GvHD) is much lower after AHSCT. Although the clinical findings of auto-GVHD are mild and self-limited in most cases, rare cases may be severe and need intensive immunosuppressive treatment. Here, we present a case who underwent autologous HSCT due to relapsed neuroblastoma, developed steroid-refractory GvHD after AHSCT, and achieved remission using ruxolitinib. A 12 years old female patient was diagnosed with relapsed neuroblastoma. After metaiodobenzylguanidine treatment, AHSCT was performed, and the status of the disease was a very good partial response at the time of transplantation. Our patient was diagnosed with severe and steroid-refractory GvHD with skin involvement after AHSCT. We used ruxolitinib with extracorporeal photopheresis because of the essential side effects of the other drugs and got a very good response. Over the following five months, there was no recurrence of GvHD. She was in complete remission of neuroblastoma after two years of AHSCT. It is crucial to keep in mind that GvHD may develop after AHSCT. Ruxolitinib is an effective treatment for GvHD also after AHSCT.

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