BV-DHAP as salvage treatment for high risk adolescent Hodgkin lymphoma

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Introduction

Hodgkin lymphoma (HL) is a highly curable lymphoid malignancy; however treatment of relapsed/refractory disease remains challenging. Early relapse, lung disease, stage IV at relapse, identify very high risk patients.

Brentuximab Vedotin (BV), an anti-CD30 antibody-drug conjugate, has shown clinical activity in relapsed/refractory classical HL as single agent or combined with various chemotherapeutic regimens, mostly in adulthood and in phase I-II studies in children and adolescent[1]. Recently the BV-DHAP (dexamethasone, cytarabin, cisplatin) combined regimen has been used with promising results in a phase II study in adults[2]. This regimen has not been reported in children or adolescents, so far. We present a case of relapse of classical HL with unfavorable prognosis, successfully treated with the combination BV-DHAP.

Methods

Case report: the child, 15 years old, diagnosed with classical HL nodular sclerosis, stage IVB with lung involvement, received first line therapy according to international Euronet PHL-C2 protocol, TL3, random DECOPDAC + mediastinal irradiation. The CT scan performed at 3-month follow up showed a nodule in the left lung. The FDG PET/CT scan showed pathological uptake in the lung, mediastinum and subcutaneous nodular tissue. Unfortunately the subsequent biopsies of a subcutaneous nodule, mediastinal adenopathy and supraclavicular adenopathy failed to demonstrate the relapse. The imaging evaluation two months later revealed disseminated lung disease with ground glass infiltrates and enlarged parenchimal infiltrate with increased mediastinal adenopathy. A biopsy of the lung by VATS (video-assisted thoracoscopic surgery) confirmed the relapse of classical HL, showing massive infiltration of histiocytes CD68+, histological risk factor for poor prognosis, as recently reported[3].

Results

A combination therapy consisting of BV and classical lymphoma salvage regimen DHAP was administered. Following 3 treatment cycles in 21-day intervals, the evaluation of the disease showed complete metabolic response (FDG-PET/CT Deauville Score 2). He went on with a further cycle BV-DHAP, achieving pretransplant complete radiological and metabolic response (negative FDG-PET/CT).
The treatment was well tolerated, hematological toxicity (grade 3 CTCAE) was reported. The boy performed autoSCT and BV post-transplant consolidation.

Conclusion

The regimen BV-DHAP, not previously reported in children or adolescent, in our experience was highly effective with manageable toxicity.

Affix

References

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