

UCLA

Proceedings of the UCLA Department of Medicine

Title

A Patient with Hodgkin's Lymphoma Presenting with Auto-Immune Hemolytic Anemia (AIHA)

Permalink

<https://escholarship.org/uc/item/Of51b977>

Journal

Proceedings of the UCLA Department of Medicine, 18(1)

Author

Black, Alexander C.

Publication Date

2014-01-10

CLINICAL VIGNETTE

A Patient with Hodgkin's Lymphoma Presenting with Auto-Immune Hemolytic Anemia (AIHA)

Alexander C. Black, M.D.

Case Report

A previously healthy 27-year-old male began having night sweats and progressive fatigue approximately 3 months prior to presentation. He finally presented to an outside hospital complaining of disabling weakness and a 40 lb weight loss. He was found to have diffusely enlarged lymph nodes (LN) on physical exam and profound anemia. He received 3 units of blood and underwent CT scans of chest, abdomen and pelvis which showed bulky mediastinal and hilar LN, up to 5 cm in size, and enlarged retroperitoneal LN, up to 2 cm. A left supraclavicular LN excisional biopsy revealed classical type Hodgkin's lymphoma (HL), lymphocyte rich variant, and a bone marrow biopsy was negative.

The patient remained transfusion dependent and felt that both his condition and treatment options weren't well addressed by his initial oncologist. On presentation here, the rationale and side effects of multiagent chemotherapy, specifically doxorubicin, bleomycin, vinblastine, and dacarbazine (ABVD) as a potentially curative treatment for Stage 3B HL were discussed. In addition, a Direct Coombs test was sent that was positive for IgG and negative for C3. Eluate testing revealed an antibody reactive to all red blood cell lines tested, which confirmed a previously unrecognized warm-type, autoimmune hemolytic anemia (AIHA). He was started on prednisone at 1 mg/kg with a gradual taper and on ABVD. He also took trimethoprim-sulfamethoxazole three times weekly and valacyclovir daily to prophylaxis against opportunistic infections from the combination of high dose prednisone and chemotherapy. After 3 of 6 planned cycles of ABVD, a follow-up PET/ CT demonstrated a near complete response and his anemia had resolved without further transfusions while on less than 10 mg/ day of prednisone. After the full 6 cycles of ABVD, he attained a complete clinical remission and had a normal hemoglobin off prednisone.

Approximately 3 months later, the patient developed a recurrent left supraclavicular lymph node and some < 2 cm mediastinal adenopathy. Excisional biopsy of

the supraclavicular lymph node confirmed recurrent Hodgkin's lymphoma. He received 4 cycles of ifosfamide, carboplatinum and etoposide (ICE) salvage chemotherapy and again attained a complete response. He is scheduled to undergo a consolidation autologous stem cell transplant. Despite his relapse, there was no evidence of recurrent AIHA.

Discussion

Autoimmune cytopenias, particularly hemolytic anemia and immune thrombocytopenia, have been associated with malignant lymphomas¹⁻⁴. AIHA occurs in about 3 % of low grade non-Hodgkin's lymphoma and much less frequently with HL¹⁻³. A retrospective review of 1029 cases of HL from Greece yielded 2 cases on presentation and 3 additional cases on post therapy follow-up³. A 2010 review of published literature revealed 34 cases of AIHA, virtually all-warm type, in association with HL³. Unlike the predominance of mixed cellularity³ or nodular sclerosis³ HL reported in both reviews, a patient similar to the one described above was recently reported who was also 27 years old with classical lymphocyte rich HL⁴. AIHA in patients with HL responds quite well to anti-HL therapy, in particular ABVD²⁻⁴. However, AIHA can occasionally occur while the patient is in a complete remission. Hence, although rare, AIHA should be considered in patients with HL, particularly if the anemia is progressive and not associated with significant bone marrow involvement with HL.

REFERENCES

1. **Feng Q, Zak D, Daya R.** Autoimmune hemolytic anemia and classical Hodgkin lymphoma: a case report and literature review. *Clin Adv Hematol Oncol.* 2012 Apr;10(4):270-6. Review. PubMed PMID: 22706493.
2. **Dimou M, Angelopoulou MK, Pangalis GA, Georgiou G, Kalpadakis C, Pappi V, Tsopra O, Koutsoukos K, Zografos E, Boutsikas G, Moschogianni M, Vardounioti I, Petevi K, Karali V, Kanellopoulos A, Ntalageorgos T, Yiakoumis X, Bartzis V, Bitsani A, Pessach E, Efthimiou A, Korkolopoulou P, Rassidakis G, Kyrtsionis MC, Patsouris E, Meletis J, Panayiotidis P, Vassilakopoulos TP.** Autoimmune hemolytic anemia and autoimmune

- thrombocytopenia at diagnosis and during follow-up of Hodgkin lymphoma. *Leuk Lymphoma*. 2012 Aug;53(8):1481-7. doi:10.3109/10428194.2012.660628. Epub 2012 Apr 2. PubMed PMID: 22280533.
3. **Lechner K, Chen YA.** Paraneoplastic autoimmune cytopenias in Hodgkin lymphoma. *Leuk Lymphoma*. 2010 Mar;51(3):469-74. doi: 10.3109/10428190903556394. Review. PubMed PMID: 20141438.
 4. **Hurtado-Cordovi JM, Verma V, Gottlieb V, Frieri M.** Lymphocyte Rich Hodgkin's Lymphoma Presented with Warm Hemolytic Anemia: A Case Report and Literature Review. *Case Rep Hematol*. 2011;2011:385408. doi: 10.1155/2011/385408. Epub 2011Sep 28. PubMed PMID: 22937306; PubMed Central PMCID: PMC3420746.

Submitted on January 10, 2014