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Short Communication

Recent Advancement on Hodgkin Lymphoma

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DRESCRIPTION

Hodgkin's lymphoma is a type of cancer that affects the lymphatic system, which is part of the body's germ-fighting immune system. In Hodgkin's lymphoma, white blood cells called lymphocytes grow out of control, causing swollen lymph nodes and growths throughout the body [1]. Characteristically, the cancer cells form an underground of the tumor and are enclosed by a reactive inflammatory milieu comprising lymphocytes, neutrophils, eosinophils, histiocytes and plasma cells. These malignant cells can be pathognomonic multinucleate giant cells or large mononuclear cells and are composed referred to as Hodgkin and Reed-Sternberg (HRS) cells. Males are expected to include about 56% of patients newly diagnosed with HL in 2017 [2]. The etiology of HL is not well understood. Epstein Barr Virus (EBV) is a ubiquitous gamma herpes virus spread mostly through saliva and is the causal agent for infectious mononucleosis. EBV-Encoded Small RNAs (EBERs) are noncoding RNAs expressed abundantly in latently EBV-infected cells and can be noticed by In Situ Hybridization (ISH). Immunosuppression in a variety of medical circumstances increases the risk of HL. The incidence of HL is meaningfully higher in the HIV-infected population than in the general population. The incidence of HL also upsurges after solid organ transplantation and in patients with a history of autoimmune circumstances such as rheumatoid arthritis, systemic lupus erythematosus and sarcoidosis. Radiotherapy had been used to treat Hodgkin lymphoma then called Hodgkin's disease since the early 1900s, but it took several periods for a better sympathetic of the patterns of feast and the fields and doses of radiation that would be obligatory to turn a palliative measure into a hypothetically curative treatment [3]. Since, in most cases, cHL spreads to contiguous nodal sites, fields involved by tumor and head-to-head fields could be irradiated allowing cure of many patients with early, and in some cases, advanced stage disease. Involved field radiation treating only sites of gross disease was replaced by extended-field radiation, where regions adjacent to known sites of disease were also treated. Mantle arena radiation covering neck, axillae, mediastinum and hilar regions along with the upturned Y field to treat the abdomen and spleen, composed formed 'total nodal irradiation'. A Stanford study showed an 80% long term freedom from progression for patients treated with total nodal irradiation, but came with a high risk of long term radiation connected toxicities. Patients with early stage cHL have an excellent prognosis with very high cure rates of >90%. In past series, these patients were more probable to die from long-term treatment connected complications than from lymphoma itself. Consequently the focus of more fresh trials has been to minimalize the long term risks of curative intent chemotherapy and radiation. Higher doses of radiation and lengthy fields of treatment were related with long term cardio-pulmonary toxicities and increased rates of breast cancer in women [4]. The goal of mutual modality therapy incorporating chemotherapy with radiation has been to minimalize doses of radiotherapy and supernumerary with combination chemotherapy, thereby preservative efficacy while reducing toxicity. Concurrently to the development of MOPP at the NCI, the Italian Istituto Nazionale Tumori under Gianni Bonnadonna developed a combination regimen with the newly exposed chemotherapeutic drugs Adriamycin i.e. Doxorubicin, Bleomycin, Vinblastine and Dacarbazine (ABVD) based on their separate anti-lymphoma activity and non-overlapping toxicities [5].

CONCLUSION

Treatment for Hodgkin lymphoma has better significantly since the Adriamycin i.e. doxorubicin, Bleomycin, Vinblastine and Dacarbazine (ABVD) chemotherapeutic mixture was invented over 30 years ago. Despite using the same ABVD regimen in most patients preserved first line, a much better sympathetic of disease biology, and late side effects of therapy and has moved near a personalized risk modified approach. This approach promises to bring low toxicities and high cure rates for lower risk patients while reserving aggressive regimens for those high risk patients who really need it. For that minority of patients who fail first line therapy, novel drugs like the antibody-drug conjugate BV and immunotherapies. In future need to see if these novel drugs could make life better for both HL patients undergoing treatment and for the growing cohort of HL survivors.

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