Immunotherapy for B-cell malignancies

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Immunotherapy has drastically altered the therapeutic landscape in oncology over the past two decades. Arguably the most successful applications of immunotherapies have been in B-cell malignancies, in which CAR-T cells and bispecific T cell engagers and antibodies, targeting CD19 and CD20, have shown remarkable efficacy in B-cell acute lymphoblastic leukaemia (B-ALL) and various B cell lymphomas. Many of these therapies are now established as standard-of-care, and are being incorporated into earlier lines of treatment, however a significant proportion of treated patients fail to respond or relapse.

In Part One of this two-part talk, the current clinical use of T-cell engaging immunotherapies in various B-cell malignancies will be discussed, with a focus on mechanism of action, efficacy and toxicity.

Part Two will address clinical and biological contributors to immunotherapy failure, with a focus on tumour intrinsic factors including genetic and non-genetic intratumour heterogeneity, antigen loss and lineage plasticity.