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Rituximab

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Rituximab is now available for treatment of CD20-positive lymphomas, and nearly 15 000 patients throughout the world have received this drug. The effects of rituximab in different malignant lymphomas are variable. Preliminary results indicate that B lymphoid malignancies with low levels of or inconsistent expression of CD20 [e.g. chronic lymphocytic leukaemia and its tissue counterpart, small lymphocytic lymphoma (International Working Formulation category-A)] respond poorly. The best responses include the disappearance of cells with *bcl-2* gene rearrangement in some patients with follicular lymphomas and a low tumour burden.

However, it is not clear that a response to rituximab translates into long-term benefit for the patient. Definitive cure is not achieved in the majority of patients with low grade lymphoma. The goals of treatment are to prolong overall survival, improve quality of life and achieve an acceptable cost-benefit ratio. Rituximab, as monotherapy or in association with combination chemotherapy, requires further evaluation with respect to these parameters. Rituximab may be effective in eliminating residual disease after high dose chemotherapy and autologous stem cell transplantation. Impressive responses to rituximab have also been observed in patients with post-transplant Epstein-Barr virus-driven lymphoproliferative disease.

Unlike chemotherapeutic agents, rituximab specifically targets CD20-positive B lymphoid cells, and not other cell types, and the haematological tolerability profile of rituximab is favourable. However, severe adverse effects occur in 10% of patients. A set of symptoms which has been termed severe cytokine release syndrome has been fatal in a few cases. High tumour burden and circulating tumour cell counts appear to be risk factors for this serious complication. Thus, caution is warranted during administration of rituximab. Rituximab presents us with the rare opportunity to properly develop and optimise use of a new drug. ▲