

On reversing the persistence of memory: hematopoietic stem cell transplant for autoimmune disease in the first ten years.

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Public Summary:

Scientific Abstract:

There has been a remarkable history in the treatment of patients with autoimmune disease in the last century. Prior to the development of newer NSAIDs and corticosteroids, the care of patients with autoimmune disease was limited to aspirin and generally homeopathic therapies such as paraffin. In the last 30 years, the introduction and acceptance of cytotoxic drugs such as methotrexate and cyclophosphamide have greatly advanced the treatment of patients with severe autoimmune diseases. However, the use and dose escalation of cytotoxic agents in severely ill patients is limited by toxicity and the potential for secondary malignancies that correlate with cumulative lifetime dosing. As hematopoietic stem cell transplant grew to become an established procedure for certain malignancies, reports of remission of coexistent autoimmune diseases began to emerge. Animal data subsequently supported a role for hematopoietic stem cell transplants for the primary indication of autoimmune diseases. On the basis of these reports, clinical trials of hematopoietic stem cell transplants for the primary indication of autoimmune disease were initiated in the late 1990s. We review the data from a decade of experience that has now accumulated for this novel approach to the management of autoimmunity.

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