

EVALUATING THE USE OF DENDRITIC
CELLS IN CANCER TREATMENT
A LITERATURE REVIEW

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ABSTRACT

Patients with cancers are frequently immunocompromised. In other words, immunocompromised individuals or people with weakened immune system are prone to get cancers and have higher risk of developing cancers. Dendritic cells immunotherapy provides an important treatment options for cancer patients. In this review, the focus will be on the aim of using dendritic cells in cancer immunotherapy, harnessing as to increase the body's immune response against cancer cells. The immune system is the body's defense system. It works on three different levels. The first level is the anatomic response. It consists of anatomical barriers to foreign particles and includes the skin and acid in the stomach. Anatomic barriers prevent foreign substances from entering the body. If foreign particles pass through the first line of defense the second line of defense called the inflammatory response kicks in. The third line of defense is the immune response. It is the main player in specific immune defense. This review has summarized the use of Dendritic cells in cancer immunotherapy, as an option for cancer treatment. Therapeutic cancer vaccines aim to generate immunologic targeting of cancer cells through the induction of effective cellular and antibody-mediated responses specific for antigens selectively expressed by the tumor. Exploiting the adaptive immune system as a targeted tool against cancer is appealing in its capacity for exact specificity and avoidance of unintended tissue damage seen by other conventional agents such as chemotherapy. Almost all type of cancer can use Dendritic cell immunotherapy as cancer treatment. Nevertheless, more clinical trials need to be done and explore further research and clinical application, too to fight cancer.