The Use of Medical Biotechnology to Treat Genetic Disease

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Abstract : Chemical drugs have been used for many centuries as the only way to cure diseases until the novel gene therapy has been created in 1960. Gene therapy is based on the insertion, correction, or inactivation of genes to treat people with genetic illness (1). Gene therapy has made wonders in Parkison's, Alzheimer and multiple sclerosis. In addition to great promises in the healing of deadly diseases like many types of cancer and autoimmune diseases (2). This method implies the use of recombinant DNA technology with the help of different viral and non-viral vectors (3). It is nowadays used in somatic cells as well as embryos and gametes. Beside all the benefits of gene therapy, this technique is deemed by some opponents as an ethically unacceptable treatment as it implies playing with the genes of living organisms.

Keywords: gene therapy, genetic disease, cancer, multiple sclerosis

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