Medicinal properties of vinca alkaloid (Catharanthus roseus) and their impact on human health

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Abstract

Abstract: Medicinal plants, contain a variety of phytochemicals promising as traditional medicine for the treatment of chronic and infectious diseases, has been safe and effective alternatives with fewer side effects than synthetic agents. Catharanthus roseus (L.) G. Don (C. roseus) has been widely available and used to treat various diseases in many countries. It is attracting more and more attention as it has been shown to have a wide range of phytochemicals with various biological activities such as antioxidant, antibacterial, antifungal, antidiabetic and anticancer characteristic. Notably, vinblastine and vincristin isolated from this plant were the first plants derived from this plant anticancer agents deployed for clinical purposes. In addition, vindoline, vindolidine, vindolicine and vindolinine isolated from C. roseus leaves showed antidiabetic properties. These findings indicate that the plant remains a promising source of bioactive substances. This article provides an overview of the tradition use and pharmacological uses of C. roseus, and a summary of updated health benefits of extracts and bioactive compounds derived from this plant have also been addressed to support their potential as therapeutic agents.

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