

Plant-derived agents in anticancer therapy

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Abstract

© 2018, Folium Ltd. All rights reserved. Cancer is one of the main cause of death from disease worldwide. There are more than a hundred distinct types of cancer which can significantly vary in their response to treatment. It is therefore search for new anticancer agents with different mechanisms of action is necessary to improve the effectiveness of cancer treatment. In this review we present the data of plant-derived agents that are clinically used to treat different types of cancer. Besides successful anti-cancer drugs from plants such as vinblastine (Velban) and vincristine (Oncovin), vinorelbium (Navelbine) and vindesinim (Vindesine), aetoposidum (VP-16) and teniposidum (VM-26), paclitaxelum (Taxol) and docetaxelum (Taxotere), topotecanum (Hycamptin) and irinotecanum (Camptosar) already used in several countries during the past few decades, perspective phyto-chemicals that have been reported to possess antitumor, cytotoxic activity and undergoing different phases of preclinical or clinical trials are reviewed. Emphasis is given to the data from numerous studies showing in vitro anticancer potential of several plant extracts which open up tremendous prospects for the development of new effective therapeutic complexes with multi-combination antitumor effect.

Keywords

Anticancer agents, Anticancer therapy, Apoptosis, Cancer, Cytotoxicity, Plant-derived compounds

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