

A review : cancer research of natural products in Asia.

ABSTRACT

With the increasing level of the carcinogenic and mutagenic substances in the environment, the research to explore new anticancer compounds has become crucial day after day. Although, many chemical anticancer agents are available, the wide spectrum side effects and emergence of chemotherapy resistant cancer cells among patients have made cancer research and discovery of new anticancer agents from natural products particularly medicinal plants pivotal. This review highlights the cancer research led to new natural anticancer agents discovered by Asian scientists in the period from 2000 to 2008. This review focuses also on the evidence based scientific research that proved the importance of dietary habits particularly the vegetarian diet as a potent factor in reducing the risk of carcinogenesis. Many components isolated from plants have been approved to be potent anticancer agents. The plant-derived polyphenolic compounds are promising nutraceuticals for control of various disorders and cancer. These compounds may be the future developing anticancer drugs with no side effect and low cost for people all around the world. The much lower risk of colon, prostate and breast cancers in Asians, who consume more vegetables, fruits and tea than populations in the western hemisphere, raises the role of flavonoid components as protective factors against carcinogenesis.

Keyword: Anticancer; Antimutagenic; Medicinal plants; Polyphenols; Diet; Natural products.