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Collection and Data-Mining of Bioactive Compounds with Cancer Treatment Properties with reference to Lamiaceae Family

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Abstract: Objective:A huge reservoir of bioactive compounds exists in many species of plants, only a small percentage of which have been examined and continued to be an important source of anticancer agents. Finding new phytochemical compounds with anticancer activity is important to design new drugs. Thus the present study attempted to mine bioactive compounds with anticancer activity from plants comes under lamiaceae family.
Methods: The bioactive compounds and their scientific details were mined from publically available phytochemical databases.
Results: Lamiaceae family comprises about3200 plant species, among them, 4 plant species were reported to possess cancer treatment activity. They were *Menthaspicata, Plectranthusamboinicus, Tectonagrandis*and*Ocimum sanctum.* These plants were reported to contain 28 bioactive compounds with cancer treatment properties. The reported activities were anticancer, anticarcinogenic, antitumor and cancer preventive activity. The important and mostly studied phytochemical compounds were beta carotene, tannin, ascorbic acid and luteolin. The results of the present study may provide a foundation for designing new drug for cancer.
Conclusion: Findings and identification of these compounds from the lamiaceae plants may provide a platform for designing new drug to ascertain the cancer preventive and chemotherapeutic from the plants of lamiaceae family.
Keywords: Anticancer activity; Bioactive compounds; Lamiacea family.

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