

Cytotoxic activity of some medicinal plants against Human cancer cell lines-Lung cancer

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Introduction:

Medicinal plants play a central role in the healthcare system of the large proportions of the world's population. Plant derived compounds are an important source of several clinically useful anticancer agents. Cytotoxicity screening models are the preliminary methods for the selection of active extracts against cancer.

Materials & Methods:

A comprehensive study was carried out to determine the Cytotoxic activity of active extracts of the plant- *P.vulgaris*, *T. buccatta* against human lung cancer (A549) cell line at eight different concentration to determine the IC₅₀ (50% growth inhibition) by MTT assay including morphological study by fluorescence microscopy, Apoptosis by Annexin V, caspase 3-7 assay and levels of expression of genes. Each sample was assayed in triplicate and control samples include cells without plant extracts.

Results:

Results demonstrate that the percentage of growth inhibition increases with increasing concentrations of test compounds. The

P.vulgaris extracts induced significant cytotoxic effects on the A549 cancer cell line and these effects were stronger than the other selected plant extracts reflecting a promising way of chemotherapy to counter the spread of non- small cell lung cancer.

Conclusion:

Extract which exhibit substantial antiproliferative and apoptic activity may represent a source for novel natural anticancer entities.

Keywords:

A549, *P.Vulgaris*, *T. Buccatta*.

Biography:

She is a researcher in the department of biosciences, Jamia Millia Islamia, India. Her experience includes various programs, contributions and participation in different events for diverse fields of study. Her research interests reflect in her wide range of publications in various national and international journals.