

## THERAPEUTIC POTENTIAL OF METHANOLIC EXTRACT OF *EVOLVULUS ALSINOIDES* PLANT FOR ANTI CANCER ACTIVITIES IN VITRO

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### ABSTRACT

Evidence is reviewed supporting a general hypothesis that genomic instability and essentially all hallmarks of cancer, including aerobic glycolysis (Warburg effect), can be linked to impaired mitochondrial function and energy metabolism. Most cancer cells become heavily dependent on substrate level phosphorylation to meet energy demands. Most chemotherapeutic drugs for cancer treatment are molecules identified and isolated from plants or their synthetic derivatives.

*Evolvulus alsinoides* Linn. (dwarf morning glory) plant is widely used as antibacterial and anthelmintic Adaptogenic (anti-stress) and anti-amnesic and a good memory tonic.

In the present investigation, determined the *in vitro* cytotoxic activity of methanol extract of *E. Alsinoides* leaves.

Cell death caused by the whole plant extracts is via apoptosis. methanolic extract of *E. alsinoides* plant showed particularly strong anticancer capabilities since it inhibited actual tumor progression in a breast adenocarcinoma mouse model. Our results suggest that whole plant extracts are promising anticancer reagents.

**KEYWORDS:** p53, MCF-7 Cells, MTT Assay, Methanolic Extract of *Evolvulus Alsinoides* Linn, Bcl2, Anti-Proliferative Activity