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Invitro anticancer effects of methanolic seed coat extract of *Momordica dioica* against human carcinoma cell lines

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Abstract: Cancer has been a common cause of deaths for decades, which had encouraged the use of many natural products from plants to be used as a treatment against it. *Momordica dioica* is one such important medicinal plant which has been used for the treatment of cancer, diabetes, allergies and inflammation. In this present study, the anticancer effects of the crude methanolic seed coat extract of *Momordica dioica* on human breast (MCF-7) and lung cancer (A549) cell line has been evaluated using the MTT assay and the DNA fragmentation assay of the MCF-7 cell line was performed. The methanolic seed coat extract of *Momordica dioica* exhibited 50% growth inhibition in MCF-7 cancer cell line at 50 $\mu\text{g/mL}$ and A549 cancer cell line at 70 $\mu\text{g/mL}$. Further MCF-7 cell line depicted a ladder like pattern of the DNA which was observed in the DNA fragmentation assay. The crude methanolic seed coat extract of *Momordica dioica* could be a potential source of natural anti-cancer agents. This study can be extended for the isolation and characterization of the active compounds which can be used as effective anti-cancer agents.

Keywords: *Momordica dioica*, cytotoxicity, MTT, DNA fragmentation.

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