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Cytotoxic activity of aqueous and methanol root bark extracts of  
*Plumbago indica* against HeLa cancer cell line

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The current study assessed constituents and cytotoxicity of root bark (RB) of *Plumbago indica* L. (Synonym: *P. rosea*; Family: Plumbaginaceae) commonly known as Indian leadwort. To investigate the constituents, methanol RB extraction was subjected to GC/MS (Gas Chromatography/Mass Spectrometry) analysis and the cytotoxicity of aqueous and methanol RB extractions were tested against HeLa cell line (P<sub>116</sub>) using the MTT [3-(4, 5-Dimethylthiazol-2-yl)-2,5-Diphenyltetrazolium Bromide] assay. Stock cultures were grown in 5% RPMI-1640 medium and a density of  $23.5 \times 10^4$  cells/well was seeded in a 96-well plate. And treated either with 31.25 to 1000 µg/mL of extracts (n=6) and negative (medium only) and positive (Absolute alcohol) controls. GC/MS analysis confirmed the sterols (Hexadecanoic acid methyl ester and 9-Octadecenoic acid methyl ester) as major constituents with 99% similarity. The aqueous and methanol extractions showed EC<sub>50</sub> (effective concentration for 50% cell death) values of 781.9±0.23 µg/mL and 42.5±0.13 µg/mL respectively. The positive control exhibited > 90% toxicity at all concentrations used. The methanol RB extraction exhibited more potent cytotoxic activity than aqueous extraction. Therefore, it can be considered as a potential therapeutic agent against cervical cancer. Hence, testing against other cancer cell lines and isolation of compounds are warranted.