



## **Evaluation of Cytotoxic, Anthelmintic and Antioxidant Studies of *Cascabelathevetia***

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**Abstract:**The aim of the present work is to evaluate cytotoxic, antioxidant and anthelmintic activities of chloroform extract of *Cascabelathevetia* roots. *In-vitro* cytotoxic activity of *Cascabelathevetia* measured at various concentration levels against two different cancer cell lines [1. MCF-7 (Human mammary gland adenocarcinoma), 2.HeLa (Human cervical carcinoma)] by MTT [3-(4, 5-dimethyl thiazol-2-yl)-2, 5-diphenyltetrazolium bromide] assay. The *Cascabelathevetia* roots at three different concentrations were tested against on *Pheritimaposthuma* (Indian adult earthworms) for *in-vitro* anthelmintic activity. The antioxidant activity was measured by percentage of scavenging and the concentration range was tested between 100 to 200 µg/ml. For MCF-7 cell line range percentage of growth inhibition was between 08.06 to 61.28% (IC<sub>50</sub> values 620±0.00). For HeLa cell line range percentage of growth inhibition was between 42.22 to 76.16 % (IC<sub>50</sub> values 270±0.00). The paralysis time of earth worms ranged from 87.3 minutes to 125 minutes for *Cascabelathevetia*, and 83.6 minutes to 114 minutes for standard drug Albendazole, where as the death time of earth worms ranged from 139.6 minutes to 168.3 minutes for *Cascabelathevetia* and 123.0 minutes to 146.3 minutes for standard drug Albendazole when tested at different concentration of these extracts and standard drug ranging from 25 to 100 mg/ml. For 100 and 200 µg/ml range percentage of scavenging of was between 29.66 to 58.66% (IC<sub>50</sub> values 162.5±5.77). From the results, it is evident that *Cascabelathevetia* is recommended as a cytotoxic, antioxidant and anthelmintic agents in pharmaceutical field.

**Keywords:** *Cascabelathevetia* chloroform extract, cytotoxic activity, antioxidant activity and anthelmintic activity.