IJBAF, March, 2013, 1(3): 145-152

ISSN: 2320 – 0774

International Journal of Biotechnology and Allied Fields (IJBAF)

www.ijbaf.com

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EVALUATION OF ANTICANCER ACTIVITY OF *CENTELLA ASIATICA* LEAVES IN BHK-21 CELLS

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ABSTRACT

Present study is to evaluate the anticancer property of methanolic, ethanolic and aqueous extracts of *Centella asiatica* (Brahmi) in BHK-21 cell lines. Aqueous extract of *C. asiatica* leaves was prepared as cold extraction method. Methanolic (MeOH) and ethanolic (EtOH) extracts were prepared in Soxlet's apparatus and dried in vaccume evaporator. The BHK-21 cells were maintained in Animal cell culture laboratory of the institute in GMEM media supplemented with 5% fetal bovine serum as per standard procedures. The cells were treated with each of the extracts in triplet wells of cell culture 24 well polysterene plates and then allowed to grow for 24 hrs. The cell growth was inhibited within 24hrs; ethanolic and aqueous extracts showed better response. On microscropic examination clumping of cells, degeneration, rounding and shrinkge of cells were observed. The concentration of 100mg/ml of ethanolic extract showed high anticancer activity.

Keywords: *Centella asiatica*, BHK-21 Cells, Anticancer Activity

INTRODUCTION

There is a renewed interest in drugs derived from plants, because of the fact that herbal medicines are safer and dependable, compared with costly synthetic drugs that have adverse effects **[1]**. *Centella asiatica,* commonly known as Mandookaparni or Brahmi, is one of the most frequently used herb in Ayurvedic medicine. The leaves of *Centella asiatica* were used for pediatric complaints in bowel problem, fever and applied externally for blows and bruises. It is commonly found as a weed in crop fields and other waste places throughout India up to an altitude of 600m. The plant is indigenous to South East Asia, India, parts of China, the western South Sea Islands. Madagascar, South Africa, South East U.S., Mexico, Venezuela, Columbia and Eastern