SURVIVAL OF HUMAN PROSTATE CARCINOMA CELL LINE (DU145) IN THE PRESENCE OF Ficus deltoidea AND Labisia pumila AQUEOUS EXTRACTS

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To my beloved wife (Shaee), father (Ali), mother (Badeaa) and sisters (Kizhan, Zhwan)

and my uncle (Latif)
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ABSTRACT

*Ficus deltoidea* and *Labisia pumila* are two local plants that have been used in traditional medicine for a long time for enhancement reproductive system and cancer treatment. In this study cell based assay were used to determine the effect of aqueous extract of these two plants on the Human Prostate carcinoma (DU145) cell line. MTT assay, viability test and morphological studies were carried out. *Ficus deltoidea* showed higher growth inhibitive than *Labisia pumila* extract. The MTT assay indicated that the most inhibitive concentration of the extracts is $1 \times 10^{-3} \mu g/ml$, this concentration is consistent throughout the course of this study. MTT assay demonstrated that *Ficus deltoidea* extracts killed around 60% and *Labisia pumila* around 42% of the cells compared with the negative control. In the viability test *Ficus deltoidea* also recorded a better effect than *Labisia pumila* which killed all the cells within 7 days. In the case of *Labisia pumila* extract is took 9 days, while 12 days needed for negative control. Both extract showed almost similar effect on the morphology of the cells. Observation under inverted microscope for both extracts observed irregular detachment and clumping of the cells. There was morphological changing of the cells from hexagonal to round shape. In apoptotic body study the effect was similar in blabbing cells, chromatin condensation, apoptotic cells and late apoptotic body formation, the difference was in the living cells which for *Labisia pumila* extract more living cells seen than *Ficus deltoidea* extract. In general both aqueous extracts showed a growth suppressive effect on the DU145 cell line, but *Ficus deltoidea* extract was more effective than *Labisia pumila* extract.
**ABSTRAK**