How Does Dandelion Affect E.coli?

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Dandelion (Taraxacum officinale), a simple herb found everywhere around the world, has been considered a weed for centuries. The word Taraxacum comes from the Greek language and means “inflammation curative”. Dandelions contain numerous compounds that have been shown to be anti-inflammatory, anti-cancer, and antioxidant. Recent studies indicate that dandelions contain vitamin B6, thiamine, riboflavin, vitamin C, iron, calcium, potassium, folic acid and magnesium. Although many Chinese herbalists believe that dandelions can restrain mass proliferation on many cancer and disease cells, there is no scientific data specifically addressing how dandelions affect cancer or disease cells. The goal of this study was to determine in what way the dandelions affect Escherichia coli, focusing on how 1) the extracts of different dandelion parts; 2) different treatments (germ-free filter and autoclave); and 3) different concentrations of extracts have an effect on suppression of E. coli growth. In this study, the dandelions were collected from yards, and separated into leaf and root. Then, the latex was extracted with a Tris-based buffer solution that contains reducing agent (DTT). The results indicate that 1) the suppress efficient of dandelion extract was not influenced by the buffer solution; 2) extract from dandelion leaves, rather than the roots, significantly decreased ($P<0.05$) the number of E.coli, as illustrated through the T-test analysis; 3) the autoclave dandelion leaf extract still contains the active ingredients, same as the germ-filtrated extracts; and 4) as the concentration of the dandelion leaf extract increased, the number of E.coli colonies decreased.

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