Viscum album, European Mistletoe

Effects on Breast and Gynecological Cancers

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Viscum album, also known as European Mistletoe, is a shrub that grows on trees in Europe and Asia. It has round white sticky berries, small unnoticeable flowers and leathery long skinny light green leaves. It grows on a variety of different trees therefore its harvesting time and extraction procedure may vary and may even take on some of the constituents of the host tree. It is a powerful medicinal herb which is used for treatment of many cancers, including cancer in children but mostly used with breast and gynecological cancers.

Viscum album’s powerful components are carefully extracted by aqueous extraction combined with fermentation, or by pressing procedures. The active constituents in Viscum album include lectins, viscotoxins, polypeptides, 46 amino acids, mucilages, polysaccharides, phenylpropanes, caffeic acids, flavonoids, alkaloids, triterpenes and stigmasterol. According to Kienle (2009) and Mitchell (2003), the effect of Viscum album is to enhance macrophage phagocytic and cytotoxic-mediated abilities, and the prominent extracts like viscotoxins and lectins, have cytotoxic and growth-inhibiting effects. Viscum album strengthens the immune system by stimulating the thymus gland, and enhancing the activation of monocytes/macrophages, granulocytes, natural killer cells, T-cells (especially helper T cells), dendritic cells, induces cytokines, and contains DNA stabilizing properties. Viscum album is delivered by means of injection for therapeutic value. Usually it is injected subcutaneously but sometimes directly into the tumor, body cavities, or intravenously. Lower concentrations of Viscum album are beneficial to stimulating the immune system but for cytoxic and anti-tumoural activities to take place higher concentrations are necessary.
The effects of European mistletoe on cancer are controversial and many clinical studies have been performed in academic hospitals, community hospitals and cancer hospitals in numerous different countries. There have been multiple study designs including randomized controlled trials, non-randomized prospective comparative studies, retrospective comparative studies and single-arm studies. However the issue still stands controversial without the double-blind, randomized controlled trials.

A few examples: Reported by Kienle, G. & Kiene H. (2009), cervical and uterus cancer were separately investigated by randomized controlled studies and non-randomized controlled studies. All reported a beneficial outcome except one which found no difference and the quality of life when tested reported a highly significant benefit. Ovarian cancer was also tested by randomized and non-randomized studies and reported to positive outcomes. In a separate study with ovarian cancer, Viscum album showed to improve quality of life and the tolerance of conventional therapy, like chemotherapy and radiation. Reported by Ziegler, R. & Grossarth-Maticek, R. (2008), this particular breast cancer study began in 1971 and the patients have been researched by The Institute of Preventative Medicine in Heidelberg for nearly three decades. There were randomized and non-randomized matched-pair studies, and were different groups separated by the stage of the cancer and the therapy received. Some results from individual randomized studies where not significantly in favor of the therapy, however, the individual non-randomized studies showed very positive results, and both the randomized and non-randomized matched-pair studies showed highly beneficial results especially in long-term use verses conventional treatment alone.
Overall, the variety of studies and experiments on Viscum album and its effects on breast and gynecological cancers predominately reported a positive outcome, stated by Kienle, G. & Kiene H. (2009), and the most consistent results concern overall quality of life and increasing the ability to tolerate conventional treatments, and tumor regression seemed to be more impacted by high dose, local application. Stated by Ziegler, R. & Grossarth-Maticek, R. (2008), across the different studies, evidence is given that long-term therapy with mistletoe preparations has a clinically prolonging effect on survival.

Throughout most of Central Europe, Viscum album is widely used in the treatment of cancer. “Mistletoe treatment is appraised by German physicians as a beneficial oncological treatment,” (Kienle, 2009). It is carefully examined in numerous ways to show benefit to those suffering with cancer of all types.
References


http://ecam.oxfordjournals.org/cgi/content/full/nen025#SEC5