Gotu Kola

Latin Name: Hydrocotyle asiatica

BRAIN FOOD; MEMORY; CIRCULATION

Use WHOLE PLANT

Native to east ASIA; south AFRICA; INDIA

HISTORY
1) FAR EAST: Leprosy and Tuberculosis
2) INDIA: TONIC; Fever; Bowel complaints; Rheumatism
3) China & India: Increase Energy

QUALITIES
1) NUTRIENTS: VITAMIN K; Magnesium; Tannic Acid

2) NERVE TONIC; Nervous System Restorative; Enhances Brain Cell ENERGY; Circulation to the BRAIN; increases Mental Activity; LEARNING Ability; MEMORY; Senility; Nervous breakdown; Anxiety; Tranquilizer; Calming
- STUDY (cognition and mood): "…randomized, placebo-controlled, double-blind study of 28 healthy elderly participants showed enhanced working memory and improvements of self-rated mood scale." (Wattanathorn 2008)

3) BLOOD CLEANSER; Skin Diseases; Psoriasis; Wound healing; Burns; Scars
- STUDY (wound/ scars): "…effective in shortening the course of diabetic wound healing and can also suppress the scar in diabetic wound patients. There was no serious side effect." (Paocharoen 2010)

- Strengthens HEART; Arteriosclerosis; High Blood Pressure

- Anti-inflammatory; Rheumatism; Arthritis
- STUDY (arthritis): "…substantially prevented arthritis (induced in mice) and alleviated infiltration of inflammatory cells as well as protected joint destruction." (Liu 2008)

- improves MICROCIRCULATION; Varicose Veins; Leg Edema
- STUDY (microcirculation): "…effective in venous insufficiency, reducing ankle edema, foot swelling, capillary filtration rate and improving microcirculatory parameters." (Cesarone 1992)

4) OTHER
- Balances HORMONES; Menopause
- Longevity; Combats FATIGUE (Mental and Physical)
- Diuretic

Gotu Kola References

Herb History and General Information

Grieve, M. *A Modern Herbal, Vol I & II*. New York and London: Hafner Publishing Co.; 1967. See excerpts at www.botanical.com accessed July 22, 2014

Keith, Velma J. and Monteen Gordon. *The How To Herb Book*. Pleasant Grove, Utah: Mayfield Publications; 1996; pp 35-36

Memorial Sloan Kettering Cancer Center. See www.aboutherbs.com accessed July 2, 2014

Ritchason, Jack, N.D. *The Little Herb Encyclopedia*. Pleasant Grove, Utah: Woodland Health Books; 1995; pp 110-111

Studies

Cesarone MR, Laurora G, De Sanctis MT, Belcaro G. [Activity of Centella asiatica in venous insufficiency]. Minerva Cardioangiol. 1992 Apr;40(4):137-43. [Article in Italian] [PubMed]

Liu M, Dai Y, Yao X, et al. Anti-rheumatoid arthritic effect of madecassoside on type II collagen-induced arthritis in mice. Int Immunopharmacol. Nov 2008;8(11):1561-1566. [PubMed]

Paocharoen V. The efficacy and side effects of oral Centella asiatica extract for wound healing promotion in diabetic wound patients. J Med Assoc Thai. 2010 Dec;93 Suppl 7:S166-70. [PubMed]

Wattanathorn J, Mator L, Muchimapura S, et al. Positive modulation of cognition and mood in the healthy elderly volunteer following the administration of Centella asiatica. J Ethnopharmacol. Mar 5 2008;116(2):325-332.

Additional info on Studies:

ARTHRITIS

Madecassoside is the highest amount of triterpene constituent in Centella asiatica herbs, a frequently prescribed crude drug in southeastern Asian and China for wound healing and scar management. The present study aimed to investigate the therapeutic potential and underlying mechanisms of madecassoside on collagen II (CII)-induced arthritis (CIA) in mice. Madecassoside (10, 20 and 40mg/kg), orally administered from the day of the antigen challenge for twenty consecutive days, dose-dependently

alleviated the severity of the disease based on the reduced clinical scores, and elevated the body weights of mice. Histopathological examination indicated that madecassoside alleviated infiltration of inflammatory cells and synovial hyperplasia as well as protected joint destruction. Moreover, madecassoside reduced the serum level of anti-CII IgG, suppressed the delayed type hypersensitivity against CII in ears, and moderately suppress CII-stimulated proliferation of lymphocytes from popliteal lymph nodes in CIA mice. In vitro, madecassoside was ineffective in the activation of macrophages caused by lipopolysaccharide. It was concluded that madecassoside substantially prevented mouse CIA, and might be the major active constituent of C. asiatica herbs responsible for clinical uses for rheumatoid arthritis. The underlying mechanisms of action may be mainly through regulating the abnormal humoral and cellular immunity as well as protecting joint destruction. (Liu 2008)

COGNITION and MOOD

Centella asiatica has a reputation to restore decline cognitive function in traditional medicine and in animal model. However, little evidence regarding the efficacy of Centella asiatica from systematized trials is available. Therefore, the present randomized, placebo-controlled, double-blind study investigated the effect of Centella asiatica on cognitive function of healthy elderly volunteer. (Wattanathorn 2008)

MATERIALS AND METHODS:

Twenty-eight healthy elderly participants received the plant extract at various doses ranging 250, 500 and 750 mg once daily for 2 months. Cognitive performance was assessed using the computerized test battery and event-related potential whereas mood was assessed using Bond-Lader visual analogue scales prior to the trial and after single, 1 and 2 months after treatment.

RESULTS:

The results showed that the high dose of the plant extract enhanced working memory and increased N100 component amplitude of event-related potential. Improvements of self-rated mood were also found following the Centella asiatica treatment.

CONCLUSION:

Therefore, the present findings suggest the potential of Centella asiatica to attenuate the age-related decline in cognitive function and mood disorder in the healthy elderly. However, the precise mechanism(s) underlying these effects still require further investigation.

WOUNDS

Centella asiatica (CA) extract is effective in the wound healing and also suppress the scar in diabetic wound patients. There was no serious side effect of the Centella asiatica extract capsule group. CA extract can shorten the course of diabetic wound healing. Paocharoen 2010

To study clinical efficacy and side effects of the oral Centella asiatica extract capsule in the diabetic wound healing. And to study the side effects of Centella asiatica extract capsule.

MATERIAL AND METHOD:

This prospective randomized control study enrolled two hundred diabetic patients in the department of Surgery, Thammasat University Hospital. The exclusion criterion were low immune patients, oral steroid intake, age more than 80 year and less than 18 yeas, serum albumin less than 3.0 gm/dl, uncorrected peripheral arterial diseased patients, and uncontrolled infective wound. The termination criterion were patient refusal, wound infection, delayed primary sutured wound secondary healing wound. The patients were divided into two groups randomly, groupA was Centella asiatica extract capsule group and group B was placebo group. Centella asiatica extract capsule and placebo were prescribed in each group under the random sheet. The administration was 2 capsules after meal, three times a day (50 mg of extracted asiaticoside / capsule in group A). The general symptoms, wound characteristics, wound size and depth were examined at day 7, day 14 and day 21 by the same investigator. The demographic data of the sample were analyzed by student t test and comparative wound characteristics were analyzed by Pearson Chi-Square test.

RESULTS:

Wound contraction in the study group is better than placebo group but granulation tissue forming is better in the placebo group. No serious adverse reaction in both groups.

CONCLUSION:

Centella asiatica extract capsule is the Thai herb preparation capsule that effective in the wound healing promotion and also suppress the scar in diabetic wound patients. There was no demonstrable serious side effect of the Centella asiatica extract capsule group. Centella asiatica extract capsule can shorten the course of diabetic wound and can be prescribed to the diabetic patients safely.

MICROCIRCULATION

Review finds that Centella asiatica is effective in venous insufficiency, reducing ankle edema, foot swelling, capillary filtration rate and improving microcirculatory parameters Cesarone 1992

In this a review concerning TTFCA, its effects on metabolism in the connective tissue of the vascular wall and on the microcirculation are presented and discussed. This compound is effective in venous insufficiency, reducing ankle edema, foot swelling, capillary filtration rate and by improving microcirculatory parameters (RF, VAR PO2-PCO2). TTFCA displays a significant activity in venous hypertensive microangiopathy and its effects are dose-dependent.