



HARENESSING THE HEALING POWER: VELD GRAPE INFUSED WITH CREPE BANDAGE

¹Ms.T. VINITHA, ²Ms.M. MYTHILI

¹ASSISTANT PROFESSOR, 2 PG SCHOLAR

PG DEPARTMENT OF COSTUME DESIGN AND FASHION

KSR COLLEGE OF ARTS AND SCIENCE FOR WOMEN, TIRUCHENGODE – 637215,

TAMIL NADU, INDIA.

ABSTRACT

The study was developed to evaluate the effect of *cissus quadrangularis* infused with crepe bandage in the process of bone healing of distal radius fracture or any other fractures. *Cissus quadrangularis* is a succulent plant of family Vitaceae usually found in tropical and subtropical xeric wood. It is a beefy desert plant like liana generally utilized as typical nourishment in India. It finds application in medicine. Experts have made efforts to test the plant's suitability using rational analysis. Some of the pharmacological uses of the plant are linked to cell reinforcement, free radical search, hostile to microbials, bone regeneration, ulceration, pain relief, mitigation and diuretics. Hence, we document the available pharmacological data on *Cissus quadrangularis* L in the literature for further use.

Keywords: *Cissus quadrangularis* L, pharmacology, medicinal plants, bone regeneration

INTRODUCTION

Medicinal plants and their extracts, exemplify the ancient and most widespread form of medication and at least 25% of the bioactive compounds used in currently approved synthetic drugs were first identified from plant sources. Due to over population, urbanization and continuous exploitation of these herbal reserves, the natural resources along with their related traditional knowledge are depleting day by day. *Cissus quadrangularis* Linn. (Veld grape) is an indigenous medicinal plant grown in India, Sri Lanka, and Africa. It has been prescribed in ancient Ayurveda texts by Bhava Prakasha and Chakra Dutta as a general tonic, especially for the fractured patient. It is widely used as an external application and as an internal medication by bonesetters. CQ is a shrub, which has slender, fleshy fibrous, smooth stem, with four winged internodes. Stem and root portion of this plant possess antioxidant and antimicrobial activity. Extracts of this plant are reported to contain phytoestrogenic steroids, ascorbic acid, carotene, calcium and anabolic steroids. Toxicological evaluation of the plant revealed that the drug is safe even at higher dose for a prolonged duration of treatment. The aim of the present case study was to evaluate the effect of CQ in accelerating healing of bone fracture by reducing pain and swelling.

Microscopic characters of the plant:

Transversely cut surface of young stem is rectangular in outline with discontinuous rings of vascular bundles. This is parallel to the under surface of the epidermis with 3 to 4 vascular bundles under the wings that is more developed than the ones at the flat sides. This is conjoint, collateral with a cap of bast fibres encircled by idio-blast containing cluster crystals of calcium oxalate, with numerous air cavities throughout the section. A complete ring of vascular strand with well-developed cambium ring is seen except at the flat broad side of the stem in old stem.

Actinocytic stomata transverse throughout the epidermis, which, in surface view, are seen, encircled by small cells forming a girdle like sheath. The epidermal cells are thick-walled and rectangular to pent angular in surface view. Cortex is composed of thin-walled parenchymatous cells containing chloroplasts, starch grains and rap hides of calcium oxalate. A colleen chymatous arc is present outside the vascular bundles in the cortex beneath each of the four angles

MATERIALS AND METHODS

PREPARATION OF TEST SAMPLE POWER

Test material was prepared by drying inside of veld grape pulp in sunlight, crushing to power.

EXTRACTION PROCEDURE

After the preparation of the sample power the next step is to convert the power into the solution. The solvent (250ml of ethanol and veld grape power separately) is added to a round bottom flask, which is attached to a soxhiet extractor and condenser on a isomantle. The herb A and B (20 g each) are loaded into the timble which is placed inside the a soxhiet extractor. The solvent is heated using the isomantle and will begin to evaporate. Once the level of the solvent reaches the siphon, it pours back into the flask and the cycle begins again. The process is run for a total of 24 hours. By following these methods, the solution will be made



Figure:1

COATING METHOD

The most common application method for easy-care and durable press finishes is a pad-dry-cure procedure. In this process, the crosslinking reactant, catalyst, softener, and other components are dried on the fabric prior to the crosslinking reaction that takes place during the curing step. The oily extracts from pyrolysis extraction technique were ... coated on compression bandage. The powdery extracts from solvent extraction technique were coated on fixation bandages.



Figure:2 PAD-DRY CURE MECHINE

RESULT

Kirby -bauer test is done in this sample. Kirby-Bauer test is widely used to determine the sensitivity or resistance of bacteria to various antimicrobial compounds, and it uses the Mueller Hinton agar. Mueller-Hinton agar is a non-selective, non-differential medium capable of growing a wide range of non-fastidious organisms

DESCRIPTION: veld grape extraction

SAMPLE TYPE: liquid sample

TEST NAME	RESULT	
Antimicrobial susceptibility	Parameter	Zone of inhibition
	Test organisms used	-
	Staphylococcus aureus ATCC 6538	0, Absent
	Klebsiella pneumoniae ATCC 4352	0, Absent

Table:1

DISCUSSION

Cures Joint Pain cause due to Strenuous Exercises

Veldt Grape contains powerful anti-inflammatory and anodyne actions that help to decrease the pain and joint inflammation effectively. Many studies prove that it improves joint mobility and reduces joint pain in athletes due to hard exercises.

Wound Healing

Vitamin C found in the Cissus Quadrangularis is a vital element of collagen (Protein) which is used by the human body to build up muscles, blood vessels, and arteries. Vitamin C aids in the growth and repair of the body tissues, and speeds up the wound healing process. So you will be recovered from injury and illness quicker.

SUMMARY AND CONCLUSION

SUMMARY

In this summary, Pain and swelling gradually reduced and was completely absent after 30 days. depicts the Radiography performed on the reveals of bone healing. *Cissus quadrangularis* is edible and is used as a vegetable in India and this plant has been used from ancient times to enhance fracture healing and has several other health benefits.

CONCLUSION:

In conclusion, interest in natural products for the treatment and prevention of disease is growing in the quest to minimize severe side effects that existing drugs can cause and WHO has endorsed the safe and effective use of such medicines Nutrition supply is an essential aspect for bone healing and the mineral calcium helps in healing of bone. The rate of new bone formation does not improve by increased intake of calcium alone. The ability for absorption and utilization of calcium should be improved for the hastening of healing. Phytochemical studies of CQ have shown the presence of various versatile constituents such as flavanoids, triterpenoids, Vitamin C, stilbene derivatives and many others, e.g. resveratrol, piceatannol, pallidolperthenocissin and phytosterols CQ acts by the stimulation of metabolism and increased uptake of the minerals calcium, sulphur, and strontium by the osteoblasts in fracture healing. Certain amino acids such as lysine help in absorption of calcium. CQ also contains Vitamin A and C that is effective in the formation of collagen. CQ facilitates bone fracture healing by accelerating the proliferative physiological process in the bone. It increases the rate of bone regeneration and improves blood circulation and nutrient supply to the bone. It preserves bone tissue anabolism and regeneration and promotes osteoblastic proliferation and differentiation

REFERENCES

1. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7649020/>
2. Arvind Rajagopalan, Changam Sheela Sasikumar and Vimal Kumar Ramachandran SMC Ortho & Trauma Care (A unit of NRA Advanced Wound Care Pvt Ltd), India
3. (1993) Research Guidelines for Evaluating the safety and Efficacy of Herbal Medicines, World Health Organization, Switzerland.
4. Enechi OC, Odonwodo I (2003) An assessment of the phytochemical and nutrient composition of the pulverized root of *Cissus quadrangularis*. *Bio Research* 1(1): 63-68.
5. Garima Mishra, Saurabh Srivastava, Nagori BP (2010) Pharmacological and therapeutic activity of *Cissus quadrangularis*: An overview. *International Journal of PharmTech Research* 2(2): 1298-1310.