
Call for Editorial Board Members

As you are well aware that we are a medical and health sciences publishers; publishing peer-reviewed journals and books since 2004.

We are always looking for dedicated editorial board members for our journals. If you completed your master's degree and must have at least five years experience in teaching and having good publication records in journals and books.

If you are interested to be an editorial board member of the journal; please provide your complete resume and affiliation through e-mail (i.e. info@rfppl.co.in) or visit our website (i.e. www.rfppl.co.in) to register yourself online.

Call for Publication of Conference Papers/Abstracts

We publish pre-conference or post-conference papers and abstracts in our journals, and deliver hard copy and giving online access in a timely fashion to the authors.

For more information, please contact:

For more information, please contact:

A Lal

Publication-in-charge

Red Flower Publication Pvt. Ltd.

48/41-42, DSIDC, Pocket-II

Mayur Vihar Phase-I

Delhi - 110 091 (India)

Phone: 91-11-79695648

E-mail: info@rfppl.co.in

Free Announcements of your Conferences/Workshops/CMEs

This privilege to all Indian and other countries conferences organizing committee members to publish free announcements of your conferences/workshops. If you are interested, please send your matter in word formats and images or pictures in JPG/JPEG/Tiff formats through e-mail attachments to sales@rfppl.co.in.

Terms & Conditions to publish free announcements:

1. Only conference organizers are eligible up to one full black and white page, but not applicable for the front, inside front, inside back and back cover, however, these pages are paid.
2. Only five pages in every issue are available for free announcements for different conferences.
3. This announcement will come in the next coming issue and no priority will be given.
4. All legal disputes subject to Delhi jurisdiction only.
5. The executive committee of the Red Flower Publication reserve the right to cancel, revise or modify terms and conditions any time without prior notice.

For more information, please contact:

A Lal

Publication-in-charge

Red Flower Publication Pvt. Ltd.

48/41-42, DSIDC, Pocket-II

Mayur Vihar Phase-I

Delhi - 110 091 (India)

Phone: 91-11-79695648

E-mail: info@rfppl.co.in

Win Free Institutional Subscription!

Simply fill out this form and return scanned copy through e-mail or by post to us.

Name of the Institution_____

Name of the Principal/Chairman_____

Management (Trust/Society/Govt./Company)_____

Address 1_____

Address 2_____

Address 3_____

City_____

Country_____

PIN Code_____

Mobile_____

Email_____

We are regular subscriber of Red Flower Publication journals.

Year of first subscription_____

List of ordered journals (if you subscribed more than 5 titles, please attach separate sheet)

Ordered through

Name of the Vendor	Subscription Year	Direct/subs Yr

Name of the journal for which you wish to be free winner

Terms & Conditions to win free institutional subscription

1. Only institutions can participate in this scheme
2. In group institutions only one institution would be winner
3. Only five institutions will be winner for each journal
4. An institution will be winner only for one journal
5. The free subscription will be valid for one year only (i.e. 1 Jan – 31 Dec)
6. This free subscription is not renewable, however, can be renewed with payment
7. Any institution can again participate after five years
8. All legal disputes subject to Delhi jurisdiction only
9. This scheme will be available to participate throughout year, but draw will be held in last week of August every year
10. The executive committee of the Red Flower Publication reserve the right to cancel, revise or modify terms and conditions any time without prior notice.

I confirm and certify that the above information is true and correct to the best of my knowledge and belief.

Place:

Signature with Seal

Date:

<i>Revised Rates for 2022 (Institutional)</i>					
Title of the Journal	Frequency	India(INR) Print Only	India(INR) Online Only	Outside India(USD) Print Only	Outside India(USD) Online Only
Community and Public Health Nursing	3	6000	5500	469	430
Indian Journal of Agriculture Business	2	6000	5500	469	430
Indian Journal of Anatomy	4	9000	8500	703	664
Indian Journal of Ancient Medicine and Yoga	4	8500	8000	664	625
Indian Journal of Anesthesia and Analgesia	6	8000	7500	625	586
Indian Journal of Biology	2	6000	5500	469	430
Indian Journal of Cancer Education and Research	2	9500	9000	742	703
Indian Journal of Communicable Diseases	2	9000	8500	703	664
Indian Journal of Dental Education	4	6000	5500	469	430
Indian Journal of Diabetes and Endocrinology	2	8500	8000	664	625
Indian Journal of Emergency Medicine	4	13000	12500	1016	977
Indian Journal of Forensic Medicine and Pathology	4	16500	16000	1289	1250
Indian Journal of Forensic Odontology	2	6000	5500	469	430
Indian Journal of Genetics and Molecular Research	2	7500	7000	586	547
Indian Journal of Law and Human Behavior	3	6500	6000	508	469
Indian Journal of Legal Medicine	2	9000	8500	703	664
Indian Journal of Library and Information Science	3	10000	9500	781	742
Indian Journal of Maternal-Fetal & Neonatal Medicine	2	10000	9500	781	742
Indian Journal of Medical and Health Sciences	2	7500	7000	586	547
Indian Journal of Obstetrics and Gynecology	4	10000	9500	781	742
Indian Journal of Pathology: Research and Practice	6	12500	12000	977	938
Indian Journal of Plant and Soil	2	7000	6500	547	508
Indian Journal of Preventive Medicine	2	7500	7000	586	547
Indian Journal of Research in Anthropology	2	13000	12500	1016	977
Indian Journal of Surgical Nursing	3	6000	5500	469	430
Indian Journal of Trauma and Emergency Pediatrics	4	10000	9500	781	742
Indian Journal of Waste Management	2	10000	9500	781	742
International Journal of Food, Nutrition & Dietetics	3	6000	5500	469	430
International Journal of Forensic Science	2	10500	10000	820	781
International Journal of Neurology and Neurosurgery	4	11000	10500	859	820
International Journal of Pediatric Nursing	3	6000	5500	469	430
International Journal of Political Science	2	6500	6000	508	469
International Journal of Practical Nursing	3	6000	5500	469	430
International Physiology	3	8000	7500	625	586
Journal of Animal Feed Science and Technology	2	8300	7800	648	609
Journal of Cardiovascular Medicine and Surgery	4	10500	10000	820	781
Journal of Emergency and Trauma Nursing	2	6000	5500	469	430
Journal of Forensic Chemistry and Toxicology	2	10000	9500	781	742
Journal of Global Medical Education and Research	2	6400	5900	500	461
Journal of Global Public Health	2	12500	12000	977	938
Journal of Microbiology and Related Research	2	9000	8500	703	664
Journal of Nurse Midwifery and Maternal Health	3	6000	5500	469	430
Journal of Orthopedic Education	3	6000	5500	469	430
Journal of Pharmaceutical and Medicinal Chemistry	2	17000	16500	1328	1289
Journal of Plastic Surgery and Transplantation	2	26900	26400	1954	575
Journal of Psychiatric Nursing	3	6000	5500	469	430
Journal of Social Welfare and Management	4	8000	7500	625	586
New Indian Journal of Surgery	6	8500	7500	664	625
Ophthalmology and Allied Sciences	3	6500	6000	508	469
Pediatric Education and Research	4	8000	7500	625	586
Physiotherapy and Occupational Therapy Journal	4	9500	9000	742	703
RFP Indian Journal of Medical Psychiatry	2	8500	8000	664	625
RFP Journal of Biochemistry and Biophysics	2	7500	7000	586	547
(RFP Journal of Dermatology (Formerly Dermatology International	2	6000	5500	469	430
(RFP Journal of ENT and Allied Sciences (Formerly Otolaryngology International	2	6000	5500	469	430
RFP Journal of Hospital Administration	2	7500	7000	586	547
Urology, Nephrology and Andrology International	2	8000	7500	625	586
Coming Soon					
RFP Gastroenterology International	2	-	-	-	-
Journal of Food Additives and Contaminants	2	-	-	-	-
Journal of Food Technology and Engineering	2	-	-	-	-
Journal of Radiology	2	-	-	-	-
Medical Drugs and Devices	3	-	-	-	-
RFP Indian Journal of Hospital Infection	2	-	-	-	-
RFP Journal of Gerontology and Geriatric Nursing	2	-	-	-	-
Terms of Supply:					
1. Agency discount 12.5%. Issues will be sent directly to the end user, otherwise foreign rates will be charged. 2. All back volumes of all journals are available at current rates. 3. All journals are available free online with print order within the subscription period. 4. All legal disputes subject to Delhi jurisdiction. 5. Cancellations are not accepted orders once processed. 6. Demand draft/cheque should be issued in favour of "Red Flower Publication Pvt. Ltd." payable at Delhi . 7. Full pre-payment is required. It can be done through online (http://rfppl.co.in/subscribe.php?mid=7). 8. No claims will be entertained if not reported within 6 months of the publishing date. 9. Orders and payments are to be sent to our office address as given below. 10. Postage & Handling is included in the subscription rates. 11. Subscription period is accepted on calendar year basis (i.e. Jan to Dec). However orders may be placed any time throughout the year.					
Order from					
Red Flower Publication Pvt. Ltd., 48/41-42, DSIDC, Pocket-II, Mayur Vihar Phase-I, Delhi - 110 091 (India) Mobile: 8130750089, Phone: 91-11-79695648 E-mail: sales@rfppl.co.in , Website: www.rfppl.co.in					

RFP Journal of Biochemistry and Biophysics

Editor-in-Chief

Sanjay Swami

Assistant Professor,
Department of Biochemistry,
Topiwala National Medical College
And B.Y.L Nair Charitable Hospital,
Mumbai, Maharashtra 400008, India
E-mail: sanjviews@yahoo.co.in

National Editorial Advisory Board

KS Meera

Professor & Head, Department of Biochemistry,
M.S. Ramaiah Medical College, Bengaluru,
Karnataka 560054, India.
E-mail: meerasrinath@hotmail.com

Neha Sharma

Associate Professor, Department of Medical Biochemistry,
Geetanjali Medical College and Hospital, Udaipur,
Rajasthan 313002, India
E-mail: neha16.sharma@gmail.com

P Jasmin Lena

Assistant Professor and Head, Department of Biochemistry
Prince Shri Venkateshwara Arts and Science College,
Chennai, Tamil Nadu 600073, India.
E-mail: jasminmalligai@gmail.com

Pushpender Kumar Sharma,

Assistant Professor, Department of Biotechnology
Sri Guru Granth Sahib World University,
Fatehgarh Sahib, Punjab 140407, India.
E-mail: pushpg_78@rediffmail.com

Syed Shahzadul Haque,

Biochemist, Department of Clinical Biochemistry Indira
Gandhi Institute of Medical Sciences Patna, Bihar 800014, India.
E-mail: sshaq2002@yahoo.co.in

Sachin Chandrakumar Narwadiya

Scientist, Vigyan Prasar C24, Qutub Institutional Area
New Delhi 110016, India.
E-mail: snarwadiya@gmail.com

Saravanan Matheshwaran,

Assistant Professor, Department of Biological Sciences and
Bio Engineering Indian Institute of Technology
Kanpur, Uttar Pradesh 208016, India.
E-mail: saran@iitk.ac.in

Sandeep Tripathi

Associate Professor Department (Biochemistry) Head
(R&D), Institute of Advance Science and Technology,
NIMS University, Jaipur, Rajasthan 303021, India.
E-mail: sandeeptripathiphd@gmail.com

Sandhya Jathar

Professor, Dept. of Biochemistry, Padmashree Dr. D.Y. Patil
Medical College, Navi Mumbai, Maharashtra 400706, India.
E-mail: dr.sandhya_jathar@rediffmail.com

Tanveer Ali Dar,

Assistant Professor, Clinical Biochemistry, University of
Kashmir, Hazratbal Srinagar, Jammu & Kashmir 190006, India
E-mail: tanveerali@kashmiruniversity.ac.in

V. Anbazhagan,

Associate Professor, Department of Chemistry, VMKV
Engineering college, Salem, Tamil Nadu 636308, India.
E-mail: anbu80@gmail.com

Managing Editor

A. Lal

Publication Editor

Dinesh Kumar Kashyap

All right reserved. The views and opinions expressed are of the authors and not of the **RFP Journal of Biochemistry and Biophysics**. **RFP Journal of Biochemistry and Biophysics** does not guarantee directly or indirectly the quality or efficacy of any product or service featured in the advertisement in the journal, which are purely commercial.

Corresponding address

Red Flower Publication Pvt. Ltd.
48/41-42 DSIDC, Pocket-II, Mayur Vihar
Phase-I, Delhi - 110 091(India)
Phone: 91-11-79695648,
E-mail: info@rfppl.co.in,
Web: www.rfppl.co.in

RFP Journal of Biochemistry and Biophysics (JBB) (Formerly Journal of Practical Biochemistry and Biophysics) publishes quality original articles and reviews in the Research Areas of Enzyme and protein structure, function, regulation. Folding, turnover, and post-translational processing, Biological oxidations, free radical reactions, redox signaling, oxygenases, P450 reactions, Signal transduction, receptors, membrane transport, intracellular signals. Cellular and integrated metabolism. Solicited peer reviewed articles on contemporary Themes and Methods in Biochemistry and Biophysics form an important feature of JBB.

Subscription Information

India

Institutional (1 year) (Print+Online): INR 7500

Rest of the World

Institutional (1 year) (Print+Online): \$ 586

Payment instructions

Online payment link:

<http://rfppl.co.in/payment.php?mid=15>

Cheque/DD:

Please send the US dollar check from outside India and INR check from India made. Payable to 'Red Flower Publication Private Limited'. Drawn on Delhi branch

Wire transfer/NEFT/RTGS:

Complete Bank Account No. 604320110000467

Beneficiary Name: Red Flower Publication Pvt. Ltd.

Bank & Branch Name: Bank of India; Mayur Vihar

MICR Code: 110013045

Branch Code: 6043

IFSC Code: BKID0006043 (used for RTGS and NEFT transactions)

Swift Code: BKIDINBBDOS

Send all Orders to: Subscription and Marketing Manager, Red Flower Publication Pvt. Ltd., 48/41-42, DSIDC, Pocket-II, Mayur Vihar Phase-I, Delhi - 110 091(India), Phone: 91-11-79695648, E-mail: sales@rfppl.co.in, Website: www.rfppl.co.in

Contents

Original Article

Role of Centanella Asiatica Powder Extract in Wound Healing	41
Marenika, Neljo Thomas, Ravi Kumar Chittoria	
Complications of Silicone Sheet Application in Scar Management	47
Chandavaram Bhanu Prakash, Ravi Kumar Chittoria, Jacob Antony Chakiath	
Role of Centella Extract in Donor Site Healing	53
Surya, Neljo Thomas, Ravi Kumar Chittoria	
Subject Index	57
Author Index	58
Guidelines for Authors	59

- | | |
|--|---------------|
| 1. Beyond Medicine: A to E for Medical Professionals) (2020)
<i>Kalidas Chavan</i> | INR390/USD31 |
| 2. Biostatistical Methods For Medical Research (2019)
<i>Sanjeev Sarmukaddam</i> | INR549/USD44 |
| 3. Breast Cancer: Biology, Prevention And Treatment (2015)
<i>Dr. A. Ramesh Rao</i> | INR 395/USD31 |
| 4. Chhotanagpur A Hinterland of Tribes (2020)
<i>Ambrish Gautam</i> | INR250/ USD20 |
| 5. Child Intelligence (2004)
<i>Dr. Rajesh Shukla, Md, Dch.</i> | INR100/ USD50 |
| 6. Clinical Applied Physiology and Solutions (2020)
<i>Varun Malhotra</i> | INR263/USD21 |
| 7. Comprehensive Medical Pharmacology (2019)
<i>Dr. Ahmad Najmi</i> | INR599/USD47 |
| 8. Critical Care Nursing in Emergency Toxicology (2019)
<i>Vivekanshu Verma</i> | INR460/USD34 |
| 9. Digital Payment (Blue Print For Shining India) (2020)
<i>Dr. Bishnu Prasad Patro</i> | INR329/USD26 |
| 10. Drugs in Anesthesia (2020)
<i>R. Varaprasad</i> | INR449/USD35 |
| 11. Drugs In Anesthesia and Critical Care (2020)
<i>Dr. Bhavna Gupta</i> | INR595/USD46 |
| 12. MCQs in Medical Physiology (2019)
<i>Dr. Bharati Mehta</i> | INR300/ USD29 |
| 13. MCQs in Microbiology, Biotechnology and Genetics (2020)
<i>Biswajit Batabyal</i> | INR285/USD22 |
| 14. MCQs In Minimal Access & Bariatric Surgery (2019)
<i>Anshuman Kaushal</i> | INR450/USD35 |
| 15. MCQs In Minimal Access and Bariatric Surgery (2nd Edition) (2020)
<i>Anshuman Kaushal</i> | INR545/USD42 |
| 16. Patient Care Management (2019)
<i>A.K. Mohiuddin</i> | INR999/USD78 |
| 17. Pediatrics Companion (2001)
<i>Rajesh Shukla</i> | INR 250/USD50 |
| 18. Pharmaceuticals-1 (A Comprehensive Hand Book) (2021)
<i>V. Sandhiya</i> | INR525/ USD50 |
| 19. Poultry Eggs of India (2020)
<i>Prafulla K. Mohanty</i> | INR390/USD30 |
| 20. Practical Emergency Trauma Toxicology Cases Workbook (2019)
<i>Dr. Vivekanshu Verma, Dr. Shiv Rattan Kochar, Dr. Devendra Richhariya</i> | INR395/USD31 |
| 21. Practical Record Book of Forensic Medicine & Toxicology (2019)
<i>Dr. Akhilesh K. Pathak</i> | INR299/USD23 |
| 22. Recent Advances in Neonatology (2020)
<i>Dr. T.M. Ananda Kesavan</i> | INR 845/USD66 |
| 23. Shipping Economics (2018)
<i>Dr. D. Amutha</i> | INR347/USD45 |
| 24. Skeletal and Structural Organizations of Human Body (2019)
<i>Dr. D.R. Singh</i> | INR659/USD51 |
| 25. Statistics In Genetic Data Analysis (2020)
<i>S.Venkatasubramanian</i> | INR299/USD23 |
| 26. Synopsis of Anesthesia (2019)
<i>Dr. Lalit Gupta</i> | INR1195/USD75 |

Order from

Red Flower Publication Pvt. Ltd.

48/41-42, DSIDC, Pocket-II, Mayur Vihar Phase-I, Delhi - 110 091 (India).

Mobile: 8130750089, Phone: 91-11-79695648

E-mail: sales@rfppl.co.in

Role of Centanella Asiatica Powder Extract in Wound Healing

Marenika¹, Neljo Thomas², Ravi Kumar Chittoria³

How to cite this article:

Marenika, Neljo Thomas, Ravi Kumar Chittoria/Role of Centanella Asiatica Powder Extract in Wound Healing/JBB Journal of Biochemistry and Biophysics. 2021;6(2):41-44

Abstract

The effectiveness of Centanella asiatica for burn wounds. Promoting fibroblast proliferation and boosting collagen and intracellular fibronectin levels, as well as improving the tensile strength of newly created skin and decreasing the inflammatory phase of hypertrophic scar and keloids, are all part of the mechanism of action. Aim of study is to evaluate the effectiveness of Centanella asiatica powder in improving the wound healing.

Keyword: Centanellaasiatica, Wound healing, Post burns.

INTRODUCTION

Wound healing includes three phase inflammation, tissue formation, tissue which is a complicated and dynamic interaction process. surgical wound scars can range from asymptomatic to unsightly in appearance. Intralesional steroid injection, surgical excision, cryotherapy, irradiation, dermabrasion, pulse and carbon dioxide laser therapy are only a few of the well proven scar treatment available.¹ These treatment

have varying degree of efficacy and necessitate numerous sessions of therapy with cost of 900 INR. In our study we discuss role of Centanella Asiatica Powder Extract in Wound healing.

METHODS AND MATERIALS

The study was carried out in a tertiary care hospital in South India after receiving approval from departmental ethical committee. The patient was a 32-year-old male with a 10 years history of electrical burns, during which he acquired a non-healing back ulcer. On examination, the ulcer was located on the back, further to the right of the midline, and was oval in shape with everted edges. The patient got a CT Dorsolumbar scan to rule out osteomyelitis after the initial standard investigation. The back ulcer was excised and histology was performed to rule out any malignant a etiology.

The defect was 6cm broad and 10cm long after resection. Squamous cell cancer was confirmed on histopathology. Due to the presence of squamous

Author's Affiliation: ^{1,2}Senior Resident, ³Professor, Department of Plastic Surgery, Jawaharlal Institute of Postgraduate Medical Education and Research, Pondicherry 605006, India.

Corresponding Author: Ravi Kumar Chittoria, Professor, Department of Plastic Surgery, Jawaharlal Institute of Postgraduate Medical Education and Research, Pondicherry 605006, India.

E-mail: drchittoria@gmail.com

Received: 20.06.2022

Accepted: 19.07.2022

cell carcinoma, a staging evaluation was performed, which ruled out regional and distant metastasis. After the defect was closed, radiotherapy was recommended to the spot. Because the surrounding tissue was unhealthy, the first stage operation was a delayed staged type 3 keystone flap. Based on vascularity and clinical judgement, the remaining delayed staged keystone flap or transposition

flap will be performed on the opposite side in the second staged. (Fig. 1) After the keystone flap, we planned for a transposition flap to cover the defect. Centanella asiatica powder extract application was done over wound (figure). After application of Centanella application 3 sitting per week for 1 month (Figure 9)

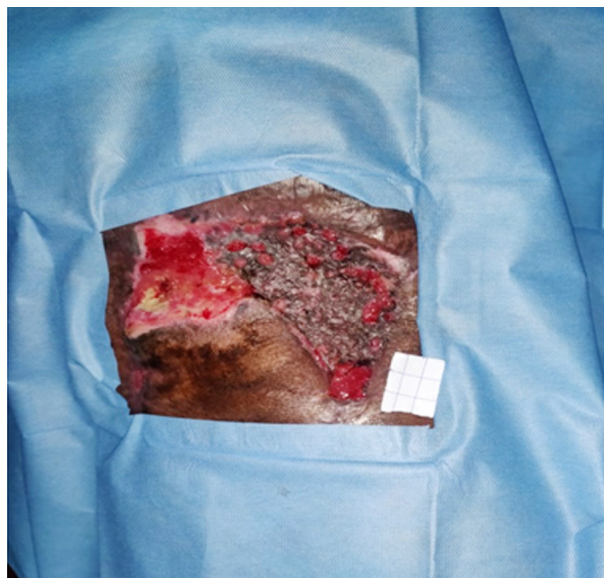


Fig. 1: Post flap wound size



Fig. 2: Application of centanella powder



Fig. 3: After application of Centanella Powder

RESULTS

After application of Centanella powder over period. In our study, by doing application wound healing we were able to successfully reduce the of size of wound. No adverse local or systemic effect noted with use of Centanella powder.

DISCUSSION

Due to its therapeutic characteristics, *C. asiatica* is widely used in South East Asian culture to treat lupus, leprosy, eczema, psoriasis, and varicose ulcers. This beneficial effect is accompanied by a faster wound contraction, which is likely due to the stimulation of fibronectin and collagen I synthesis as well as matrix remodelling. These two characteristics are typical of the wound healing process's proliferative stage. *C. asiatica* has also been found to be effective in the maintenance of connective tissue as well as the strengthening of weaker veins. As a result, it could be effective in the treatment of venous insufficiency and hypertensive microangiopathy.²

Improved tensile strength in in vivo research has previously showed increased collagen I production in wound healing. This rise could be owing to the pro-angiogenic effect of increased VEGF and FGF levels. Both growth factors are involved in the wound healing process, namely in the stages of haemostasis, proliferation, and repair, and so influence wound healing. VEGF also controls cell proliferation, differentiation, and migration during angiogenesis. This encourages the creation of new capillaries, allowing for better circulation to the wound site and hence the delivery of critical nutrients and oxygen. The increased expression of certain mediators, such as IL-1 and monocyte Chemoattractant Protein-1, causes VEGF to be stimulated (MCP-1).³

Wound contraction aids in the healing process. Collagen is a protein that aids in wound healing. The mechanism of action is to induce the synthesis of human collagen.¹ Centanella extract inhibits the tissue overgrowth.

Burns cause a dysregulated inflammatory and stress response in the host, which is characterised by increased levels of cytokines, chemokines, and acute phase proteins. Following the inflammatory reaction, several cytokines and growth factors help

restore vascular perfusion and promote wound healing by activating keratinocytes and fibroblasts. Wound remodelling is the next stage of healing, during which collagen and elastin are deposited and fibroblasts are continue transformed into myofibroblasts.²

Inhibit inflammation, induce collagen production, increase angiogenesis, induce vasodilation, and reduce wound oxidative stress to aid wound healing. Furthermore, extracts of *C. asiatica* have been shown to influence cellular growth and proliferation in injured tissues. New tissue growth replaces damaged tissue in an optimum wound healing situation, resulting in functional or cosmetic degradation. Endothelial growth factor, fibroblast growth factor, and vascular endothelial growth factor may all be involved in the wound healing activity of *C. asiatica* extracts.³⁻⁵

CONCLUSION

In our study treatment with *C. asiatica* may improve wound healing by increasing angiogenesis and decreasing inflammation. Moreover, when PGE2 and other inflammatory chemicals are lowered, this anti-inflammatory impact may result in less swelling, redness, and pain in the wound region.

REFERENCES

1. Arribas-López, E., Zand, N., Ojo, O., Snowden, M. J., & Kochhar, T. (2022). A Systematic Review of the Effect of Centella asiatica on Wound Healing. *International Journal of Environmental Research and Public Health*, 19(6) *International Journal of Environmental Research and Public Health*, (2022), 19(6)
2. Bunman, S., Dumavibhat, N., Chatthanawaree, W., ntalapaporn, S., Thuwachaosuan, T., & Thongchuan, C. (2017). Burn Wound Healing: Pathophysiology and Current Management of Burn Injury. *The Bangkok Medical Journal*, (2017), 91-98, 13(02)
3. Paocharoen, V. (2010). The Efficacy and Side Effects of Oral Centella asiatica extract for Wound Healing Promotion in Diabetic Wound Patients. *Asian Journal of Pharmaceutical and Clinical Research*, (2017), 69-74, 10(10)
4. Incandela, L., Cesarone, M. R., Cacchio, M., de Sanctis, M. T., Santavenere, C., D'Auro, M. G., Bucci, M., & Belcaro, G. (2001). Total triterpenic fraction of Centella asiatica in chronic venous insufficiency

- and in high-perfusion microangiopathy *Angiology* (2001), 52 (10 SUPPL. 2)
5. Prakash, V., Jaiswal, N., & Srivastava, M. (2017). A review on medicinal properties of *Centella asiatica*. *Asian Journal of Pharmaceutical and Clinical Research* 93Asian Journal of Pharmaceutical and Clinical Research, (2017), 69-74, 10(10)



Instructions to Authors

.Submission to the journal must comply with the Guidelines for Authors
 .Non-compliant submission will be returned to the author for correction

To access the online submission system and for the most up-to-date version of the Guide
 :for Authors please visit

<http://www.rfppl.co.in>

Technical problems or general questions on publishing withh **JBB** are supported by
 Red Flower Publication Pvt. Ltd.'s Author Support team ([http://rfppl.co.in/article_](http://rfppl.co.in/article_(submission_system.php?mid=5#)
[submission_system.php?mid=5#](http://rfppl.co.in/article_(submission_system.php?mid=5#)

.Alternatively, please contact the Journal's Editorial Office for further assistance

Editorial Manager

.Red Flower Publication Pvt. Ltd
 DSIDC, Pocket-II ,48/41-42
 Mayur Vihar Phase-I
 (Delhi - 110 091(India
 Mobile: 9821671871, Phone: 91-11-79695648
 E-mail: author@rfppl.co.in

RFP Journal of Biochemistry and Biophysics

Library Recommendation Form

If you would like to recommend this journal to your library, simply complete the form given below and return it to us. Please type or print the information clearly. We will forward a sample copy to your library, along with this recommendation card.

Please send a sample copy to:

Name of Librarian

Name of Library

Address of Library

Recommended by:

Your Name/ Title

Department

Address

Dear Librarian,

I would like to recommend that your library subscribe to the RFP Journal of Biochemistry and Biophysics. I believe the major future uses of the journal for your library would provide:

1. Useful information for members of my specialty.
2. An excellent research aid.
3. An invaluable student resource.

I have a personal subscription and understand and appreciate the value an institutional subscription would mean to our staff.

Should the journal you're reading right now be a part of your University or institution's library? To have a free sample sent to your librarian, simply fill out and mail this today!

Stock Manager

Red Flower Publication Pvt. Ltd.

48/41-42, DSIDC, Pocket-II

Mayur Vihar Phase-I

Delhi - 110 091(India)

Phone: 91-11-79695648, Cell: +91-9821671871

E-mail: sales@rfppl.co.in

Complications of Silicone Sheet Application in Scar Management

Chandavaram Bhanu Prakash¹, Ravi Kumar Chittoria², Jacob Antony Chakiath³

How to cite this article:

Chandavaram Bhanu Prakash, Ravi Kumar Chittoria, Jacob Antony Chakiath/Complications of Silicone Sheet Application in Scar Management/JBB Journal of Biochemistry and Biophysics. 2021;6(2):47-49

Abstract

Plastic surgeons play a major role in prevention of occurrence of unsightly scars, as well as management of the scars that have already occurred. Recent guidelines suggest the use of silicone therapy as a non invasive first line prophylactic for the prevention and management of both keloid and hypertrophic scars. In this article we would like to describe our experience with the use of silicone sheet for scar management.

Keyword: Silicone Sheet, Scar

INTRODUCTION

Scarring can have many consequences like, unpleasant physical impairments, aesthetic issues, and psychological and social troubles. There is a wide range of scarring which can be either a simple mature linear scar or can be a abnormal raised and hypertrophic scar or a troublesome keloid.¹ Plastic surgeons play a major role in prevention of occurrence of unsightly scars, as

well as management of the scars that have already occurred. Many option invasive and non invasive are available for the management of scars, the choice of which is based on the surgeon preference and suitability of the technique for a particular scar. Recent guidelines suggest the use of silicone therapy as a non invasive first line prophylactic for the prevention and management of both keloid and hypertrophic scars.² In this article we would like to describe our experience with the use of silicone sheet for scar management.

Author's Affiliation: ¹Junior Resident, Department of General Surgery, ²Professor, ³Senior Resident, Department of Plastic Surgery, Jawaharlal Institute of Postgraduate Medical Education and Research, Pondicherry 605006, India.

Corresponding Author: Ravi Kumar Chittoria, Professor, Department of Plastic Surgery, Jawaharlal Institute of Postgraduate Medical Education and Research, Pondicherry 605006, India.

E-mail: drchittoria@gmail.com

Received: 20.05.2022

Accepted: 22.06.2022

MATERIALS AND METHODS

This was done in a tertiary care hospital in south part of India after receiving approval from departmental ethics committee. The subject is a 40 yrs old male with post necrotising soft tissue infection of right leg and foot. Initially he was managed for necrotizing fasciitis (Figure 1) and after that scar management was started. Silicon sheet was applied for scar management. Observing

day by day will help us to know any complications with silicon sheet (Figure 2). On third day of

application of silicon sheet, we have observed maceration (Figure 3) of skin at wound area.



Fig. 1: Healed wound with scarring



Fig. 2: Application of Silicone Gel Sheet dressing for Scar



Fig. 3: Maceration seen after silicon sheet application

- Step 1 : Make wound free of infection.
- Step 2 : Wound management up to granulation tissue cover completely.
- Step 3 : Apply silicone sheet
- Step 4 : Look for complications.

RESULTS

After that we have removed the dressing and treated with antibiotics and regular dressing (figure 4). Therefore maceration of skin can be considered as a side effect of silicon sheet dressing.



Fig. 4: Complete Healing of Maceration after removal of silicone sheet.

DISCUSSION

Scar management is an important step in management of wound. Topical silicone therapy is commonly used to treat hypertrophic scars and keloids, as well as to prevent the formation of aberrant scarring. Silicone gel sheeting (SGS) has been shown to be useful in scar control, however it does have certain drawbacks. SGS cannot be used on some regions of the body.⁴ Sheetting is impracticable for large regions or near joints, and it is difficult to use on the face or other areas where the curves or motility of the skin make adequate contact and coverage problematic. Scars are to be repaired as they can give ugly appearance and sometimes restriction of daily activities. So it is better to know about new techniques and complications associated with them. Silicone gel sheets (SGS) transmit half as much moisture vapour as bare skin. Moisture accumulated in the stratum corneum of the skin as a result of this impact, leading to the conclusion that the stratum corneum can behave as a water reservoir in their study.⁵

Silicone sheet application has been seen as an upcoming technique in treating scars. So we should study about the complications associated with it. After the application of silicon sheet dressing we have observed the skin maceration after 2 days. Then it was resolved with antibiotic dose and regular dressings.

CONCLUSION

Skin maceration has observed with application of silicone dressing. It was resolved with antibiotics and regular dressings. Skin maceration can be considered as a complication of silicone sheet dressing.

Conflicts of interest: None

Declarations: None

Financial Disclosure: None

REFERENCES

1. Puri N, Talwar A. The efficacy of silicone gel for the treatment of hypertrophic scars and keloids. *Journal of cutaneous and aesthetic surgery*. 2009 Jul;2(2):104.
2. Kim JS, Hong JP, Choi JW, Seo DK, Lee ES, Lee HS. The efficacy of a silicone sheet in postoperative scar management. *Advances in Skin & Wound Care*. 2016 Sep 1;29(9):414-20
3. Mustoe, T.A. Evolution of Silicone Therapy and Mechanism of Action in Scar Management. *Aesth Plast Surg* 32, 82 (2008).
4. Goel, A., & Shrivastava, P. (2010). Post-burn scars and scar contractures. *Indian journal of plastic surgery: official publication of the Association of Plastic Surgeons of India*, 43(Suppl), S63–S71.
5. Behrangi E, Goodarzi A, Roohaninasab M, Sadeghzadeh-Bazargan A, Nobari NN, Ghassemi M. A review of scar treatment related to acne and burn. *J Crit Rev*. 2020;7(4):714-22.



Red Flower Publication Pvt. Ltd.

CAPTURE YOUR MARKET

For advertising in this journal

Please contact:

International print and online display advertising sales

Advertisement Manager

Phone: 91-11-79695648, Cell: +91-9821671871

E-mail: sales@rfppl.co.in

Recruitment and Classified Advertising

Advertisement Manager

Phone: 91-11-79695648, Cell: +91-9821671871

E-mail: sales@rfppl.co.in

REDKART.NET

(A product of RF Library Services (P) Limited)

(Publications available for purchase: Journals, Books, Articles and Single issues)

(Date range: 1967 to till date)

The Red Kart is an e-commerce and is a product of RF Library Services (P) Ltd. It covers a broad range of journals, Books, Articles, Single issues (print & Online-PDF) in English and Hindi languages. All these publications are in stock for immediate shipping and online access in case of online.

Benefits of shopping online are better than conventional way of buying.

1. Convenience.
2. Better prices.
3. More variety.
4. Fewer expenses.
5. No crowds.
6. Less compulsive shopping.
7. Buying old or unused items at lower prices.
8. Discreet purchases are easier.

URL: www.redkart.net

Instructions to Authors

.Submission to the journal must comply with the Guidelines for Authors
.Non-compliant submission will be returned to the author for correction

To access the online submission system and for the most up-to-date version of the Guide
:for Authors please visit

<http://www.rfppl.co.in>

Technical problems or general questions on publishing withh **JBB** are supported by
Red Flower Publication Pvt. Ltd.'s Author Support team ([http://rfppl.co.in/article_](http://rfppl.co.in/article_submission_system.php?mid=5#)
([submission_system.php?mid=5#](http://rfppl.co.in/article_submission_system.php?mid=5#)

.Alternatively, please contact the Journal's Editorial Office for further assistance

Editorial Manager

.Red Flower Publication Pvt. Ltd

DSIDC, Pocket-II ,48/41-42

Mayur Vihar Phase-I

(Delhi - 110 091(India

Mobile: 9821671871, Phone: 91-11-79695648

E-mail: author@rfppl.co.in

Role of Centella Extract in Donor Site Healing

Surya¹, Neljo Thomas², Ravi Kumar Chittoria³

How to cite this article:

Surya, Neljo Thomas, Ravi Kumar Chittoria/ Role of Centella Extract in Donor Site Healing/JBB Journal of Biochemistry and Biophysics. 2021;6(2):53-55

Abstract

Currently, several medicinal plants have been integrated into the health care system to aid in wound healing. Centella asiatica has been used in traditional medicine because of its ability to heal wounds and prevent scarring. This article is about the role of Centella asiatica in donor site healing.

Keywords: Centella asiatica, Donor site healing, Gene expressions, Scar, asiaticoside, madecassoside

INTRODUCTION

Wound healing process occurs with almost all medical treatments. Natural substances contained in herbs and plants have properties that assist in and enhance the wound healing process with its antioxidant, anti-inflammatory and antibacterial properties.^{1,2} The graft donor site is a superficial partial thickness wound in which there is loss of epidermis and part of the dermis.

Epithelialization is the natural act of healing dermal tissue resulting in minimal or no scarring.⁵ In most cases, scars occur if the depth reaches the dermis layer. When hypertrophic scar or keloid develops, it may induce itching, pain and even scar contracture.³ A lot of agents have been used to improve scars such as onion extract, resveratrol in grape's skin, curcumin and centella. The role of Centella asiatica in donor site healing is due to its anti oxidant and anti inflammatory and collagen remodelling property.⁶

PREPARATION

Centella asiatica, also commonly known as Gotu kola, is a small plant that belong to the family Apiaceae.⁴ The Centella asiatica is prepared by being extracted with 70% alcohol in cream preparation. It is formulated from 7% w/w Centella extract 100 gram, combined with Centella extract 7g., cetyl alcohol 15g., stearyl alcohol 12g., mineral oil 5g., cetomacrogol-1,000 3g., propylene glycol

Author's Affiliation: ¹Junior Resident, Department of General Surgery, ²Senior Resident, ³Professor, Department of Plastic Surgery, Jawaharlal Institute of Postgraduate Medical Education and Research, Pondicherry 605006, India.

Corresponding Author: Ravi Kumar Chittoria, Professor, Department of Plastic Surgery, Jawaharlal Institute of Postgraduate Medical Education and Research, Pondicherry 605006, India.

E-mail: drchittoria@gmail.com

Received: 27.06.2022

Accepted: 19.07.2022

1g., paraben concentrate 1.5g, and water refill for total of 100g for the whole combination. The Centella extract comprised asiaticoside 5.12% and madecassoside 5.1% which has the wound healing property.

MECHANISM

The active compounds of *C. asiatica* responsible for donor site healing are pentacyclic triterpenes, including asiaticoside and madecassoside. In vitro studies demonstrated that asiaticoside decreases fibroblast proliferation in a dose-related manner and reduces the expression of both TGF- β I and TGF- β II at the transcriptional and translational level.¹⁰ Asiaticoside also slows down scar formation by increasing the activity process of SMAD 7 which is a negative regulator of TGF- β signalling.¹¹ The other active composition, madecassoside acts by inhibiting the migration of fibroblasts.¹² Both active chemical substances promote *C. asiatica* to induce fibroblast proliferation and collagen synthesis. It

involves the improvement of the tensile strength of newly formed skin and maturation of the scar by the production of type I collagen.⁷

APPLICATIONS

It is mostly often used for wound healing, treating mental fatigue, bronchitis, asthma, dysentery, kidney trouble, urethritis, antiallergic and anticancer purposes and even for blood pressure. It is rarely used for memory improvement with not much use. Use of Centellase for 4-8 weeks seems to improve blood circulation and reduce swelling in people with varicose veins.

ADVANTAGES

It has low adherence to the wound bed (Figure1). It doesn't have skin irritating potential and has no effects on serum biochemical profile when applied dermally. There is limited or no scar formation.^{8,9}



Fig. 1: Application of Centella asiatica on donor site

DISADVANTAGES

It can't be used in conditions like damage to skin caused by radiation therapy. It is safe when used for up to 10 weeks. It might cause itchiness and redness if used for longer period. Contact dermatitis^{13,14} can occur sometimes. It also might cause liver damage. Especially, people who already have a liver disease should avoid using centella asiatica since it might make liver problems worse.

CONCLUSION

The effect of Centella cream on scar development of the donor site of the split-thickness skin grafts may be attainable in terms of better pigmentation. By means of objective measurements and longer follow-up times, Centella cream may prove to be an alternative to prevent the formation of hypertrophic scar.

REFERENCES

1. Meo S. A., Al-Asiri S. A., Mahesar A. L., Ansari M. J. Role of honey in modern medicine. *Saudi Journal of Biological Sciences*. 2017;24(5):975–978.
2. Agyare C., Boakye Y. D., Bekoe E. O., Hensel A., Dapaah S. O., Appiah T. Review: African medicinal plants with wound healing properties. *Journal of Ethnopharmacology*. 2016;177:85–100.
3. Van den Helder C. J. M., Joris Hage J. Sense and nonsense of scar creams and gels. *Aesthetic Plastic Surgery*. 1994;18(3):307–313.
4. Somboonwong J., Kankaisre M., Tantisira B., Tantisira M. H. Wound healing activities of different extracts of *Centella asiatica* in incision and burn wound models: an experimental animal study. *BMC Complementary and Alternative Medicine*. 2012;12, article 103
5. Grossman A. J. A simplified technique for split-thickness skin graft donor-site care. *Plastic and Reconstructive Surgery*. 2004;113(2):796–797.
6. Bian D., Zhang J., Wu X., et al. Asiatic acid isolated from *Centella asiatica* inhibits TGF- β 1-induced collagen expression in human keloid fibroblasts via PPAR- γ activation. *International Journal of Biological Sciences*. 2013;9(10):1032–1042.
7. Dang C. M., Beanes S. R., Lee H., Zhang X., Soo C., Ting K. Scarless fetal wounds are associated with an increased matrix metalloproteinase-to-tissue-derived inhibitor of metalloproteinase ratio. *Plastic and Reconstructive Surgery*. 2003;111(7):2273–2285.
8. Ju-Lin X., Shao-Hai Q., Tian-Zeng L., et al. Effect of asiaticoside on hypertrophic scar in the rabbit ear model. *Journal of Cutaneous Pathology*. 2009;36(2):234–239.
9. Chuangsuwanich A., Arunakul S., Kamnerdnakta S. The efficacy of combined herbal extracts gel in reducing scar development at a split-thickness skin graft donor site. *Aesthetic Plastic Surgery*. 2013;37(4):770–777.
10. Tang B., Zhu B., Liang Y., et al. Asiaticoside suppresses collagen expression and TGF- β /Smad signaling through inducing Smad7 and inhibiting TGF- β RI and TGF- β RII in keloid fibroblasts. *Archives of Dermatological Research*. 2011;303(8):563–572.
11. Qi S. H., Xie J.-L., Pan S., et al. Effects of asiaticoside on the expression of Smad protein by normal skin fibroblasts and hypertrophic scar fibroblasts. *Clinical and Experimental Dermatology*. 2008;33(2):171–175.
12. Wu F., Bian D., Xia Y., et al. Identification of Major Active Ingredients Responsible for Burn Wound Healing of *Centella asiatica* Herbs. *Evidence-Based Complementary and Alternative Medicine*. 2012;2012:13.
13. Gomes J., Pereira T., Vilarinho C., Duarte M. D. L., Brito C. Contact dermatitis due to *Centella asiatica*. *Contact Dermatitis*. 2010;62(1):54–55.
14. Hafeez F., Maibach H. An overview of parabens and allergic contact dermatitis. *Skin Therapy Letter*. 2013;18(5):5–7.



RFP Journal of Biochemistry and Biophysics

Library Recommendation Form

If you would like to recommend this journal to your library, simply complete the form given below and return it to us. Please type or print the information clearly. We will forward a sample copy to your library, along with this recommendation card.

Please send a sample copy to:

Name of Librarian

Name of Library

Address of Library

Recommended by:

Your Name/ Title

Department

Address

Dear Librarian,

I would like to recommend that your library subscribe to the RFP Journal of Biochemistry and Biophysics. I believe the major future uses of the journal for your library would provide:

1. Useful information for members of my specialty.
2. An excellent research aid.
3. An invaluable student resource.

I have a personal subscription and understand and appreciate the value an institutional subscription would mean to our staff.

Should the journal you're reading right now be a part of your University or institution's library? To have a free sample sent to your librarian, simply fill out and mail this today!

Stock Manager

Red Flower Publication Pvt. Ltd.

48/41-42, DSIDC, Pocket-II

Mayur Vihar Phase-I

Delhi - 110 091(India)

Phone: 91-11-79695648, Cell: +91-9821671871

E-mail: sales@rfppl.co.in

Subject Index

TITLE	PAGE NO
Characteristic of Flaviviridae and Diseases Caused by Viruses in this Family: A Briefing	9
Complications of Silicone Sheet Application in Scar Management	47
Impact of Willpower on Health in Humans	21
Role of Centanella Asiatica Powder Extract in Wound Healing	41
Role of Centella Extract in Donor Site Healing	53
Semen Analysis as a Tool to Assess Infertility among Males	15



Author Index

Name	Page No	Name	Page No
Chandavaram Bhanu Prakash	47	Ravi Kumar Chittoria	41
Deepika D Manwatkar	15	Ravi Kumar Chittoria	47
Jacob Antony Chakiath	47	Ravi Kumar Chittoria	53
Jyotsana Singh	21	Sachin C Narwadiya	15
Marenika	41	Sachin C Narwadiya	21
Moon Moon Satpathy	9	Sonam Sarita Bal	9
Neljo Thomas	41	Surya	53
Neljo Thomas	53		



Guidelines for Authors

Manuscripts must be prepared in accordance with "Uniform requirements for Manuscripts submitted to Biomedical Journal" developed by international committee of medical Journal Editors

Types of Manuscripts and Limits

Original articles: Up to 3000 words excluding references and abstract and up to 10 references.

Review articles: Up to 2500 words excluding references and abstract and up to 10 references.

Case reports: Up to 1000 words excluding references and abstract and up to 10 references.

Online Submission of the Manuscripts

Articles can also be submitted online from http://rfppl.co.in/customer_index.php.

1) First Page File: Prepare the title page, covering letter, acknowledgement, etc. using a word processor program. All information which can reveal your identity should be here. use text/rtf/doc/PDF files. Do not zip the files.

2) Article file: The main text of the article, beginning from Abstract till References (including tables) should be in this file. Do not include any information (such as acknowledgement, your name in page headers, etc.) in this file. Use text/rtf/doc/PDF files. Do not zip the files. Limit the file size to 400 Kb. Do not incorporate images in the file. If file size is large, graphs can be submitted as images separately without incorporating them in the article file to reduce the size of the file.

3) Images: Submit good quality color images. Each image should be less than 100 Kb in size. Size of the image can be reduced by decreasing the actual height and width of the images (keep up to 400 pixels or 3 inches). All image formats (jpeg, tiff, gif, bmp, png, eps etc.) are acceptable; jpeg is most suitable.

Legends: Legends for the figures/images should be included at the end of the article file.

If the manuscript is submitted online, the contributors' form and copyright transfer form has to be submitted in original with the signatures of all the contributors within two weeks from submission. Hard copies of the images (3 sets), for articles submitted online, should be sent to the journal office at the time of submission of a revised manuscript. Editorial office: Red Flower Publication Pvt. Ltd., 48/41-42, DSIDC, Pocket-II, Mayur Vihar Phase-I, Delhi - 110 091, India, Phone: 91-11-79695648, Cell: +91-9821671871. E-mail: author@rfppl.co.in. Submission page: http://rfppl.co.in/article_submission_system.php?mid=5.

Preparation of the Manuscript

The text of observational and experimental articles should be divided into sections with the headings: Introduction, Methods, Results, Discussion, References, Tables, Figures, Figure legends, and Acknowledgment. Do not make subheadings in these sections.

Title Page

The title page should carry

- 1) Type of manuscript (e.g. Original article, Review article, Case Report)
- 2) The title of the article, should be concise and informative;
- 3) Running title or short title not more than 50 characters;
- 4) The name by which each contributor is known (Last name, First name and initials of middle name), with his or her highest academic degree(s) and institutional affiliation;
- 5) The name of the department(s) and institution(s) to which the work should be attributed;
- 6) The name, address, phone numbers, facsimile numbers and e-mail address of the contributor responsible for correspondence about the manuscript; should be mentioned.
- 7) The total number of pages, total number of photographs and word counts separately for abstract and for the text (excluding the references and abstract);
- 8) Source(s) of support in the form of grants, equipment, drugs, or all of these;
- 9) Acknowledgement, if any; and
- 10) If the manuscript was presented as part at a meeting, the organization, place, and exact date on which it was read.

Abstract Page

The second page should carry the full title of the manuscript and an abstract (of no more than 150 words for case reports, brief reports and 250 words for original articles). The abstract should be structured and state the Context (Background), Aims, Settings and Design, Methods and Materials, Statistical analysis used, Results and Conclusions. Below the abstract should provide 3 to 10 keywords.

Introduction

State the background of the study and purpose of the study and summarize the rationale for the study or observation.

Methods

The methods section should include only information that was available at the time the plan or protocol for the study was written such as study approach, design, type of sample, sample size, sampling technique, setting of the study, description of data collection tools and methods; all information obtained during the conduct of the study belongs in the Results section.

Reports of randomized clinical trials should be based on the CONSORT Statement (<http://www.consort-statement.org>). When reporting experiments on human subjects, indicate whether the procedures followed were in accordance with the ethical standards of the responsible committee on human experimentation (institutional or regional) and with the Helsinki Declaration of 1975, as revised in 2000 (available at http://www.wma.net/e/policy/17-c_e.html).

Results

Present your results in logical sequence in the text, tables, and illustrations, giving the main or most important findings first. Do not repeat in the text all the data in the tables or illustrations; emphasize or summarize only important observations. Extra or supplementary materials and technical details can be placed in an appendix where it will be accessible but will not interrupt the flow of the text; alternatively, it can be published only in the electronic version of the journal.

Discussion

Include summary of key findings (primary outcome measures, secondary outcome measures, results as they relate to a prior hypothesis); Strengths and limitations of the study (study question, study design, data collection, analysis and interpretation); Interpretation and implications in the context of the totality of evidence (is there a systematic review to refer to, if not, could one be reasonably done here and now?, What this study adds to the available evidence, effects on patient care and health policy, possible mechanisms)? Controversies raised by this study; and Future research directions (for this particular research collaboration, underlying mechanisms, clinical

research). Do not repeat in detail data or other material given in the Introduction or the Results section.

References

List references in alphabetical order. Each listed reference should be cited in text (not in alphabetic order), and each text citation should be listed in the References section. Identify references in text, tables, and legends by Arabic numerals in square bracket (e.g. [10]). Please refer to ICMJE Guidelines (http://www.nlm.nih.gov/bsd/uniform_requirements.html) for more examples.

Standard journal article

[1] Flink H, Tegelberg Å, Thörn M, Lagerlöf F. Effect of oral iron supplementation on unstimulated salivary flow rate: A randomized, double-blind, placebo-controlled trial. *J Oral Pathol Med* 2006; 35: 540-7.

[2] Twetman S, Axelsson S, Dahlgren H, Holm AK, Källestål C, Lagerlöf F, et al. Caries-preventive effect of fluoride toothpaste: A systematic review. *Acta Odontol Scand* 2003; 61: 347-55.

Article in supplement or special issue

[3] Fleischer W, Reimer K. Povidone iodine antiseptics. State of the art. *Dermatology* 1997; 195 Suppl 2: 3-9.

Corporate (collective) author

[4] American Academy of Periodontology. Sonic and ultrasonic scalers in periodontics. *J Periodontol* 2000; 71: 1792-801.

Unpublished article

[5] Garoushi S, Lassila LV, Tezvergil A, Vallittu PK. Static and fatigue compression test for particulate filler composite resin with fiber-reinforced composite substructure. *Dent Mater* 2006.

Personal author(s)

[6] Hosmer D, Lemeshow S. Applied logistic regression, 2nd edn. New York: Wiley-Interscience; 2000.

Chapter in book

[7] Nauntofte B, Tenovou J, Lagerlöf F. Secretion and composition of saliva. In: Fejerskov O,

Kidd EAM, editors. Dental caries: The disease and its clinical management. Oxford: Blackwell Munksgaard; 2003. p. 7-27.

No author given

[8] World Health Organization. Oral health surveys - basic methods, 4th edn. Geneva: World Health Organization; 1997.

Reference from electronic media

[9] National Statistics Online – Trends in suicide by method in England and Wales, 1979-2001. www.statistics.gov.uk/downloads/theme_health/HSQ20.pdf (accessed Jan 24, 2005): 7-18. Only verified references against the original documents should be cited. Authors are responsible for the accuracy and completeness of their references and for correct text citation. The number of reference should be kept limited to 20 in case of major communications and 10 for short communications.

More information about other reference types is available at www.nlm.nih.gov/bsd/uniform_requirements.html, but observes some minor deviations (no full stop after journal title, no issue or date after volume, etc).

Tables

Tables should be self-explanatory and should not duplicate textual material.

Tables with more than 10 columns and 25 rows are not acceptable.

Table numbers should be in Arabic numerals, consecutively in the order of their first citation in the text and supply a brief title for each.

Explain in footnotes all non-standard abbreviations that are used in each table.

For footnotes use the following symbols, in this sequence: *, †, ‡, §§,

Illustrations (Figures)

Graphics files are welcome if supplied as Tiff, EPS, or PowerPoint files of minimum 1200x1600 pixel size. The minimum line weight for line art is 0.5 point for optimal printing.

When possible, please place symbol legends below the figure instead of to the side.

Original color figures can be printed in color at the editor's and publisher's discretion provided the author agrees to pay.

Type or print out legends (maximum 40 words, excluding the credit line) for illustrations using double spacing, with Arabic numerals corresponding to the illustrations.

Sending a revised manuscript

While submitting a revised manuscript, contributors are requested to include, along with single copy of the final revised manuscript, a photocopy of the revised manuscript with the changes underlined in red and copy of the comments with the point to point clarification to each comment. The manuscript number should be written on each of these documents. If the manuscript is submitted online, the contributors' form and copyright transfer form has to be submitted in original with the signatures of all the contributors within two weeks of submission. Hard copies of images should be sent to the office of the journal. There is no need to send printed manuscript for articles submitted online.

Reprints

Journal provides no free printed reprints, however a author copy is sent to the main author and additional copies are available on payment (ask to the journal office).

Copyrights

The whole of the literary matter in the journal is copyright and cannot be reproduced without the written permission.

Declaration

A declaration should be submitted stating that the manuscript represents valid work and that neither this manuscript nor one with substantially similar content under the present authorship has been published or is being considered for publication elsewhere and the authorship of this article will not be contested by any one whose name (s) is/are not listed here, and that the order of authorship as placed in the manuscript is final and accepted by the co-authors. Declarations should be signed by all the authors in the order in which they are mentioned in the original manuscript. Matters appearing in the Journal are covered by copyright but no objection will be made to their reproduction provided permission is obtained from the Editor prior to publication and due acknowledgment of the source is made.

Approval of Ethics Committee

We need the Ethics committee approval letter from an Institutional ethical committee (IEC) or an institutional review board (IRB) to publish your Research article or author should submit a statement that the study does not require ethics approval along with evidence. The evidence could either be consent from patients is available and there are no ethics issues in the paper or a letter from an IRB stating that the study in question does not require ethics approval.

Abbreviations

Standard abbreviations should be used and be spelt out when first used in the text. Abbreviations should not be used in the title or abstract.

Checklist

- Manuscript Title
- Covering letter: Signed by all contributors
- Previous publication/ presentations mentioned, Source of funding mentioned
- Conflicts of interest disclosed

Authors

- Middle name initials provided.
- Author for correspondence, with e-mail address provided.
- Number of contributors restricted as per the instructions.
- Identity not revealed in paper except title page (e.g.name of the institute in Methods, citing previous study as 'our study')

Presentation and Format

- Double spacing
- Margins 2.5 cm from all four sides
- Title page contains all the desired information. Running title provided (not more than 50 characters)
- Abstract page contains the full title of the manuscript
- Abstract provided: Structured abstract provided for an original article.
- Key words provided (three or more)
- Introduction of 75-100 words
- Headings in title case (not ALL CAPITALS). References cited in square brackets

- References according to the journal's instructions

Language and grammar

- Uniformly American English
- Abbreviations spelt out in full for the first time. Numerals from 1 to 10 spelt out
- Numerals at the beginning of the sentence spelt out

Tables and figures

- No repetition of data in tables and graphs and in text.
- Actual numbers from which graphs drawn, provided.
- Figures necessary and of good quality (color)
- Table and figure numbers in Arabic letters (not Roman).
- Labels pasted on back of the photographs (no names written)
- Figure legends provided (not more than 40 words)
- Patients' privacy maintained, (if not permission taken)
- Credit note for borrowed figures/tables provided
- Manuscript provided on a CDROM (with double spacing)

Submitting the Manuscript

- Is the journal editor's contact information current?
- Is the cover letter included with the manuscript? Does the letter:
 1. Include the author's postal address, e-mail address, telephone number, and fax number for future correspondence?
 2. State that the manuscript is original, not previously published, and not under concurrent consideration elsewhere?
 3. Inform the journal editor of the existence of any similar published manuscripts written by the author?
 4. Mention any supplemental material you are submitting for the online version of your article. Contributors' Form (to be modified as applicable and one signed copy attached with the manuscript)

Instructions to Authors

.Submission to the journal must comply with the Guidelines for Authors
 .Non-compliant submission will be returned to the author for correction

To access the online submission system and for the most up-to-date version of the Guide
 :for Authors please visit

<http://www.rfppl.co.in>

Technical problems or general questions on publishing withh **JBB** are supported by
 Red Flower Publication Pvt. Ltd.'s Author Support team ([http://rfppl.co.in/article_](http://rfppl.co.in/article_(submission_system.php?mid=5#)
[submission_system.php?mid=5#](http://rfppl.co.in/article_(submission_system.php?mid=5#)

.Alternatively, please contact the Journal's Editorial Office for further assistance

Editorial Manager

.Red Flower Publication Pvt. Ltd
 DSIDC, Pocket-II ,48/41-42
 Mayur Vihar Phase-I
 (Delhi - 110 091(India
 Mobile: 9821671871, Phone: 91-11-79695648
 E-mail: author@rfppl.co.in

REDKART.NET

(A product of RF Library Services (P) Limited)
(Publications available for purchase: Journals, Books, Articles and Single issues)
(Date range: 1967 to till date)

The Red Kart is an e-commerce and is a product of RF Library Services (P) Ltd. It covers a broad range of journals, Books, Articles, Single issues (print & Online-PDF) in English and Hindi languages. All these publications are in stock for immediate shipping and online access in case of online.

Benefits of shopping online are better than conventional way of buying.

1. Convenience.
2. Better prices.
3. More variety.
4. Fewer expenses.
5. No crowds.
6. Less compulsive shopping.
7. Buying old or unused items at lower prices.
8. Discreet purchases are easier.

URL: www.redkart.net