

ISSN 0973-9777

Volume-6 Number-6 November-December 2012

GISI Impact Factor 0.2310

The Indian Journal of Research

ANVIKSHIKI

Bi-monthly International Journal of all Research

Science



Tamaso Maa Jyotirgamaya



MPASVO

Instituted on behalf of the ANVIKSHIKI by
www.anvikshikijournal.com

MANEESHA PUBLICATIONS

www.anvikshikijournal.com

Anvikshiki

The Indian Journal of Research

Bi-Monthly International Journal of All Research

Editor in Chief

Dr. Maneesha Shukla, maneeshashukla76@rediffmail.com

Review Editors

Prof. H. D. Khanna, Head Department of Biophysics, Institute of Medical Sciences Banaras Hindu University, Varanasi U.P. India
Ranjana S. Khanna, Department of Chemistry, Faculty of Science, Banaras Hindu University, Varanasi U.P. India

Editors

Dr. Mahendra Shukla, Dr. Anshumala Mishra

Editorial Board

Dr. Anita Singh, Dr. Bhavna Gupta, Dr. Madhavi Shukla, Dr. S. M. Shukla, Dr. Nilmani Prasad Singh, Dr. Reena Chatterjee,
Dr. Pragya Srivastava, Dr. Anup Datt Sharma, Dr. Padmini Ravindra Nath, Manoj Kumar Singh, Deepak Kumar, Archana Rani,
Avanish Shukla, Vijaylaxmi, Kavita, Jyoti Prakash, Rashmi Saxena., Dr. A. K. Thakur, Narendra Shanker Tripathi,
Anil Kr. Tripathi, Dr. Amit Vaibhav.

International Advisory Board

Dr. Javad Khalatbari (Tonekabon, Iran.), Dr. Shohreh Ghorbanshiroudi (Tonekabon, Iran.), Mohammad Mojtaba Keikhayfarzaneh
(Zahedan, Iran.), Saeedeh Motamed (Tonekabon, Iran.), Majid Karimzadeh (Iran), Phra Boonserm Sriitha (Thailand),
Rev. Dodamgoda Sumanasara (Kalutara South), Ven. Kendagalle Sumanaransi Thero (Srilanka), Phra Chutidech Sansombat
(Bangkok, Thailand), Rev. T. Dhammaratana (Srilanka), P. Treerachi Sodama (Thailand), Sita Ram Bahadur Thapa (Nepal)

Manager

Maheshwar Shukla, maheshwar.shukla@rediffmail.com

Abstracts and Indexing

<http://nkrc.niscair.res.in/browseByTitle.php?Keword=A, ICMJE>, www.icmje.org, Academia.edu, banaras.academia.edu,
ebookbrowse.com, [BitLibrary!](http://BitLibrary.net) [http:// www.bitlib.net/](http://www.bitlib.net/), Tech eBooks, freetechebooks.com, ARTAPP.NET, artapp.net, Catechu PDF / printfu.org, File Away, www.fileaway.info, KMLE 의학 검색 엔진, library, <http://www.docslibrary.com>, MyCelular.ORG, Android Tips, Apps, Theme and Phone Reviews <http://dandroidtips.com>, [http://www.edu-doc.com](http://edu-doc.com), www.themarketingcorp.com, Dunia Ebook Gratis duniaebook.net, www.cn.doc-cafes.com, Google, <http://scholar.google.co.in>, Website : www.onlineijra.com. Motilal Banarasi Das Index, Varanasi, Motilal Banarasi Das Index, Delhi. Banaras Hindu University Journal Index, Varanasi. www.bhu.ac.in, D.K.Publication Index, Delhi. National Institute of Science Communication and Information Resources Index, New Delhi.

Subscriptions

Anvikshiki, The Indian Journal of Research is Published every two months (January, March, May, July, September and November) by mpasvo Press, Varanasi. u.p. India. A Subscription to The Indian Journal of Research : Anvikshiki Comprises 6 Issues in Hindi and 6 in English and 3 Extra Issues. Prices include Postage by Surface mail, or For Subscription in the India by Speed Post. Airmail rates are also available on request. Annual Subscriptions Rates (Volume 3, 6 Issues in Hindi, 6 Issues in English and 6 Issues of science 2012):

Subscribers

Institutional : Inland 4,000 +500 Rs. P.C., Single 1500+51 Rs.P.C., Overseas 6000+2000Rs. P.C., Single 1000+500 Rs.P. C.
Personal : 2,500+500 Rs. P.C., Single 500+51 Rs. P.C., Overseas 5000+2000Rs.P.C., Single 1000+500Rs. P.C.

Advertising & Appeal

Inquiries about advertising should be sent to editor's address. Anvikshiki is a self financed Journal and support through any kind or cash shall be highly appreciated. Membership or subscription fees may be submitted via demand draft in favor of Dr. Maneesha Shukla and should be sent at the address given below. Sbi core banking cheques will also be accepted.

All correspondence related to the Journal should be addressed to

B.32/16 A., Flat No.2/1, Gopalkunj, Nariya, Lanka, Varanasi, U.P., India

Mobile : 09935784387, Tel.0542-2310539., e-mail : maneeshashukla76@rediffmail.com, www.anvikshikijournal.com

Office Time : 3-5 P.M. (Sunday off)

Journal set by

Maheshwar Shukla, maheshwar.shukla@rediffmail.com
9415614090

Printed by

mpasvo Press



Maneesha Publication

(Letter No. V-34564, Reg. 533/2007-2008)
B-32/16-A-2/1, Gopalkunj, Nariya, Lanka
Varanasi, U.P., India

Anvikshiki

The Indian Journal of Research

Volume 6 Number 6 November 2012

Science Papers

- Comparative Study of Patient Controlled Epidural Analgesia (Pcea) For Labour Pain Using Bupivacaine, Bupivacaine With Fentanyl or Clonidine- Prospective, Double-blinded, Randomized Sequential-allocation Study. 1-9
Shaheen Bano, Shashi Prakash and Yashpal Singh
- The prevalence of Diabetes Mellitus its current treatment trends 10-16
Amit Vaibhav, O. P. Singh and Anil Kumar Tripathi
- An Introduction To Esophageal Cancer: Pathogenesis, Types And Risk Factors 17-21
Saurabh Singh Rathore
- Leech Therapy in Acute Filarial Attacks 22-25
Anil Kumar Tripathi, S. J. Gupta, S.C. Varshney and Amit Vaibhav
- Prevalence of Diabetes and Pre-diabetes In Urban Population In India: A Review 26-29
Reema Singh and Mayank Srivastava
- Assessment of Nutritional Status of Adolescent Girls in Rural Area of District Varanasi 30-34
Sweta Singh, Dr. Sangeeta Kansal and Dr. Alok Kumar
- Use of Formative Research to Optimize Infant and Young Child Feeding Practices (IYCF) in Developing Countries. 35-42
Fahmina Anwar, Ratan.K.srivastava and S.P.Singh
- Statistical Analysis of Physico-chemical Characteristics of Sewage Discharge into the River Ganga During Navratri Mela At Vindhyachal, Mirzapur. 43-49
Kshama Singh and B. D. Tripathi
- Comparative study of Cytology and Quantitative Cytology in the Surveillance of None—Muscle-Invasive Bladder Cancer 50-56
Archana Rani
- Study of Simplex Method For Linear Programming: An Overview 57-60
Sanjeev Kumar Singh and Dr. Kameshwar Singh
- Hematocrit and its Impact on Quantitative Bio-analysis using Dried Blood Spot Technology 61-67
Ajay Kumar
- Analysis – DEA and fuzzy: a case study of Academic Dept. 68-72
Manoj Kumar Verma and Dr. Kameshwar Singh
- Determination of optical properties of human blood using Monte Carlo simulations technique 73-78
Ajay Kumar

LEECH THERAPY IN ACUTE FILARIAL ATTACKS

ANIL KUMAR TRIPATHI*, S. J. GUPTA**, S.C. VARSHNEY*** AND AMIT VAIBHAV****

Declaration

The Declaration of the authors for publication of Research Paper in The Indian Journal of Research Anvikshiki ISSN 0973-9777 Bi-monthly International Journal of all Research: We, *Anil Kumar Tripathi, S. J. Gupta, S.C. Varshney and Amit Vaibhav* the authors of the research paper entitled LEECH THERAPY IN ACUTE FILARIAL ATTACKS declare that , We take the responsibility of the content and material of our paper as We ourself have written it and also have read the manuscript of our paper carefully. Also, We hereby give our consent to publish our paper in Anvikshiki journal , This research paper is our original work and no part of it or it's similar version is published or has been sent for publication anywhere else.We authorise the Editorial Board of the Journal to modify and edit the manuscript. We also give our consent to the Editor of Anvikshiki Journal to own the copyright of our research paper.

Abstract

Filariasis is a disappointing infection. It creates partial or total loss of function of affected part. Management of filariasis is not very satisfactory, in early stage it can treat somehow but not in chronic stage. Saliva of leech can improve the microcirculation (channels) which was block by filarial pathology. Leech therapy along with antifilarial drug (diethylcarbamazine citrate) give a better result in respect of quick relief from symptoms and less or no recurrence of acute attack.

Keywords: Filariasis, Leech therapy

Introduction

This helminthic infection is a major global cause of lymphoedema¹

A recent World Health Organization report has shown that 3287 million people live in countries that are endemic for filariasis and around 751 million of these are in areas where the transmission is known to occur. Approximately 80 million people in 76 countries are infected with filarial parasites².

Caused of 'lymphatic filariasis' by a range of nematode worms including *Wuchereria bancrofti*, *Brugia malayi*, and least importantly, *Brugia timori*. *Wuchereria bancrofti* accounts for about 90 per cent of infections and *Brugia malayi* for most of the remaining cases^{3,4}.

Widespread in tropical and subtropical areas (India, Africa, China, Indonesia, the West Indies, and Australia).Globally, about two-thirds of infected people live in China, India, and Indonesia².

Transmitted to humans by the bite of many genera of mosquitoes⁵. The larvae mature into adult worms within the human host and the female produces microfilariae that are then transmitted to biting

*Ph.D Scholar (Ayu.) , Department of Shalya Tantra [I.M.S.] B.H.U Varanasi (U.P.) India. (Editorial Board Member)

**Assistant professor Department of Shalya Tantra [I.M.S.] B.H.U. Varanasi (U.P.) India.

***Professor, Department of Kayachikitsa [I.M.S.] B.H.U. Varanasi (U.P.) India.

****Ph.D Scholar (Ayu.), Department of Kayachikitsa [I.M.S.] B.H.U. Varanasi (U.P.) India.

insects, thus completing the life cycle. The worm enters the lymphatics and lodges in the lymph nodes, where a severe fibrotic reaction causes obstruction to the lymphatic pathways, which are often grossly dilated. This results in severe swelling of the limbs (usually the lower) called 'elephantiasis'.

Clinicopathological features

Wucherial worms enter the lymphatic system and cause:

- acute lymphangitis, acute swollen, painful lymphatics and nodes;
- Fever with chills and rigor,
- chronic lymphadenitis and lymphatic obstruction especially of the lower limbs and genitalia, leads to elephantiasis.

Diagnosis

It is usually clinical. The diagnosis is confirmed by finding microfilariae, which enter the blood in large numbers at night. To ensure the maximum possibility of detecting filariae, a blood sample should be taken at midnight. Thick blood smears using 0.02 ml of blood stained with Giemsa should be sufficient to diagnose infections where microfilariae densities are between 250 to 20000/ml, but light infections may require concentration techniques. A strongly positive complement fixation test suggests active or past filariasis.

Treatment

Better treat in Acute lymphadenitis

- ◆ Rest the affected part.
- ◆ Antibiotics (ampicillin 500mg by IM injection twice daily for 10 days) are used to treat secondary infection caused by beta-haemolytic streptococcus and Staphylococcus aureus.
- ◆ Specific antifilarial drugs, diethylcarbamazine citrate start at 1mg/kg orally three times daily for 3 weeks.
- ◆ Surgical drainage of abscesses when they occur.

Chronic lymphoedema (elephantiasis)

- ◆ There is no satisfactory operation. Abnormal subcutaneous tissue can be excised and the affected part covered with a split skin graft. One variation is to excise the skin of the leg in long strips and then excise the subcutaneous tissue and apply skin to the denuded tissue. Apply a plaster of Paris dressing. The results are satisfactory, but certainly not cosmetic.

Material & method

Fresh leeches, storage pot, purification trays, turmeric powder, rice, *Saindhava* salt, sterile needle, dressing materials were basic requirements for leech therapy After selecting a case for leech therapy⁶ by proper history (specially bleeding disorder, infectious disorder ie HIV etc), general examination and local examination.

Pre-Application preparation :first of all leeches purified by putting in the solution of turmeric powder and normal water⁶ for some time (till leeches move here and there), then rinsed by normal water. Before the application of leech diseased area should be prepared by scrubbing with fresh gauze piece soaked with normal water.

Leech application :Leech should be held with a dry gauge piece. First try to stabilize it with it's posterior sucker then attach it's mouth on target spot. If it does not bite, a few drops of milk, ghee, butter or fresh blood should be poured at that site. If then also it does not bite, take a prick with a sterile needle and try to attach the leech. After knowing that it has started to suck the blood it should be covered with wet gauge except the mouth and the gauge should be kept wet by continuously pouring water on it. When the patient complains of *pricking pain* and *itching* at the site of bite, leech should be removed from the site. Generally leech leaves the site by itself but if it does not, then apply some honey or powder of *Saindhava* salt at its mouth.

Post Application care :When leech fallen away, its body should be massaged by rice and mouth should be bathed with common salt added oil. Its tail should be held by left hand in between thumb and index finger. Then squeeze the leech by opposite hand slowly and gently. Put the leech in storage pot and don't reuse same leech before 7days. If blood-letting is proper – clean the bite site with cold water, apply ointment and honey locally.

Method :3- 5 leeches apply according to strength and severity of disease, at alternate day succession.

Follow up :All the patients were instructed to attend the OPD or ward on every 2nd day for leech application till symptomless condition.

Conclusion

Leech Therapy with antifilarial treatment gives a better therapeutic effect in acute attacks of filariasis. Pain, tenderness and burning sensation are relief immediately in first and second sittings. Reccurent attacks also reduce.



Before treatment



During treatment



After treatment

REFERENCES

- ¹ K M PFARR, A Y DEBRAH, S SPECHT & A HOERAUF, Filariasis and lymphoedema, *Parasite Immunol.* 2009 November; 31(11): 664–672.,doi:10.1111/j.1365-3024.2009.01133.x.
- ² *WHO Report on the mid-term assessment of microfilaraemia reduction in sentinel sites of 13 countries of the Global Programme to Eliminate Lymphatic Filariasis.* *Wkly Epidemiol Rec.* 2004;79:358–365. [PubMed].
- ³ *Center for Disease Control and Prevention.* “Lymphatic Filariasis”. Retrieved 18 July 2010
- ⁴ KARPANEN T, ALITALO K. Molecular biology and pathology of lymphangiogenesis. *Annu Rev Pathol.* 2008;3:367–397. [PubMed].
- ⁵ “*Lymphatic filariasis*”. Health Topics A to Z. World Health Organization. Retrieved 2011-09-25.
- ⁶ *Sushruta Samhita Sutra Sthana* chapter- 13

Note for Contributors

SUBMISSION OF PAPERS

Contributions should be sent by email to Dr. Maneesha Shukla Editor-in-Chief, Anvikshiki, The Indian Journal of Research (maneeshashukla76@rediffmail.com), www.onlineijra.com

Papers are reviewed on the understanding that they are submitted solely to this Journal. If accepted, they may not be published elsewhere in full or in part without the Editor-in-Chief's permission. Please save your manuscript into the following separate files-***Title; Abstract; Manuscript; Appendix***. To ensure anonymity in the review process, do not include the names of authors or institution in the abstract or body of the manuscript.

Title: This title should include the manuscript, full names of the authors, the name and address of the institution from which the work originates the telephone number, fax number and e-mail address of the corresponding author. It must also include an exact word count of the paper.

Abstract: This file should contain a short abstract of no more than 120 words.

MANUSCRIPT: This file should contain the main body of the manuscript. Paper should be between 5 to 10 pages in length, and should include only such reviews of the literature as are relevant to the argument. An exact word count must be given on the title page. Papers longer than 10 pages (including *abstracts, appendices and references*) will not be considered for publication. Undue length will lead to delay in publication. Authors are reminded that Journal readership is abroad and international and papers should be drafted with this in mind.

References should be listed alphabetically at the end of the paper, giving the name of journals in full. Authors must check that references that appear in the text also appear in the References and *vice versa*. Title of book and journals should be italicised.

Examples:

BLUMSTEIN, A. and COHEN, J. (1973), 'A Theory of Punishment' *Journal of Criminal Law and Criminology*, 64:198-207

GUPTA, RAJKUMAR (2009), *A Study of The Ethnic Minority in Trinidad in The Perspective of Trinidad Indian's Attempt to Preserve Indian Culture*, India: Maneesha Publication,

RICHARDSON, G. (1985), 'Judicial Intervention in Prison Life', in M. Maguire, J. Vagg and R. Morgan, eds., *Accountability and Prisons*, 113-54. London: Tavistock.

SINGH, ANITA. (2007), *My Ten Short Stories*, 113-154. India: Maneesha Publication.

In the text, the name of the author and date of publication should be cited as in the Harvard system (e.g. Garland 1981: 41-2; Robertson and Taylor 1973: ii.357-9). If there are more than two authors, the first name followed by *et al.* is mandatory in the text, but the name should be spelt out in full in the References. Where authors cite them as XXXX+date of publication.

Diagrams and tables are expensive of space and should be used sparingly. All diagrams, figures and tables should be in black and white, numbered and should be referred to in the text. They should be placed at the end of the manuscript with their preferred location indication in the manuscript (e.g. Figure 1 here).

Appendix: Authors that employ mathematical modelling or complex statistics should place the mathematics in a technical appendix.

NOTE : Please submit your paper either by post or e-mail along with your photo, bio-data, e-mail Id and a self-addressed envelop with a revenue stamp worth Rs.51 affixed on it. One hard copy along with the CD should also be sent. A self-addressed envelop with revenue stamp affixed on it should also be sent for getting the acceptance letter. Contributors submitting their papers through e-mail, will be sent the acceptance letter through the same. Editorial Board's decision will be communicated within a week of the receipt of the paper. For more information, please contact on my mobile before submitting the paper. All decisions regarding members on Editorial board or Advisory board Membership will rest with the Editor. Every member must make 20 members for Anvikshiki in one year. For getting the copies of 'Reprints', kindly inform before the publication of the Journal. In this regard, the fees will be charged from the author.

COPYRIGHT of the papers published in the Journal shall rest with the Editor.

Search Research papers of The Indian Journal of Research Anvikshiki-ISSN 0973-9777 in the Websites given below

<http://nkrc.niscair.res.in/BrowseByTitle.php?keyword=A>



www.icmje.org



www.scholar.google.co.in



www.kmle.co.kr



www.fileaway.info



www.banaras.academia.edu



www.edu-doc.com



www.docslibrary.com



www.dandroidtips.com



www.printfu.org



www.cn.doc-cafes.com



www.freetechebooks.com



www.google.com



www.onlineijra.com

ISSN 0973-9777



09739777

₹ 1100/-