

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/257984933>

# Dr D K Dwivedi, Leech Therapy-Why I am doing !

Conference Paper · October 2013

CITATIONS

0

READS

665

1 author:



D K Dwivedi

S.R.M. Government Ayurveda College and Hospital, Bareilly

6 PUBLICATIONS 1 CITATION

SEE PROFILE

Some of the authors of this publication are also working on these related projects:



Management of Anal Fistula with Multiple External Opening by single Seton (Ksharsutra) [View project](#)



Contributions of indian surgeons in the field of plastic surgery [View project](#)

# Leech Therapy- Why I am doing !



(C):DrDKDwivedi

**Dr D K Dwivedi,**

M.D.(Ayu) Shalya, Jamnagar

Deputy Medical Suprintendent

S.R.M. Govt. Ayurveda College & Hospital, Bareilly U.P.

**Contact: 09412489222**

Email- [drayurvedi@rediffmail.com](mailto:drayurvedi@rediffmail.com)

# Why I am doing ! Evidence

- References In Ayurvedic Literature
- Sushruta Samhita,
- Charak Samhita,
- Astang Samgruh,
- Astang Hruday

अनुशस्त्राणि तु त्वक्मरम्फटिककाचकुरुविन्द-  
जलौकाग्निक्षारनग्वगोर्जाशेफालिकाशाकपत्रकरीर-  
वालाङ्गुलय इति ॥ १५ ॥ S.S.S.-8

जलौकःक्षारदहनकाचोपलनस्त्रादयः ।  
अलौहान्यनुशस्त्राणि, तान्येवं च विकल्पयेत् ॥२७॥

A.H.S.-26

पूर्वस्मिन्नध्याये यान्यनुशस्त्राप्युक्तानि तेषु तु प्रधानं  
जलौकसोऽतस्तन्निर्णयार्थमध्यायारम्भः । A.S.S.-35

Easy to use

नृपाढ्यवालस्थांवेरभौरुदुबलनारीसुकुमाराणाम-  
नुग्रहार्थं परमसुकुमारोऽयं शोणितावसेचनोपा-  
योऽभिहितो (यत्) जलौकसः ॥ ३ ॥ S.S.S.-13

जलौकसस्तु सुखिनां रक्तस्रावाय योजयेत् ।

A.H.S.-26

# Indications

त्वग्दोषा ग्रन्थयः शोफा रोगाः शोणितजाश्च ये ॥  
रक्तमोक्षणशीलानां न भवन्ति कदाचन ॥ ३५ ॥

S.S.S.-14

सम्पृक्ताद्दुष्टशुद्धास्त्राजलौका दुष्टशोणितम् ।  
आदत्ते प्रथमं हंसः क्षीरं क्षीरोदकादिव ॥ ४२ ॥  
( गुल्मार्शाविद्रवीन् कुष्ठवातरक्तगलामयान् ।  
नेत्ररुग्निषवोसर्पान् शमयन्ति जलौकसः ॥ १ ॥ )

विकाराः सर्वे एवैते विज्ञेयाः शोणिताश्रयाः ॥ ५ ॥

शीतोष्णस्निग्धरुचाद्यैरुपक्रान्ताश्च ये गदाः ।

सम्यक्साध्या न सिध्यन्ति रक्तजांस्तान् विनिर्दिशेत् ॥

कुर्याच्छोणितरोगेषु रक्तपित्तहरीं क्रियम् ।

विरेकमनुवासश्च स्त्रावणं शोणितस्य च ॥ ६ ॥

C.S.S.-24

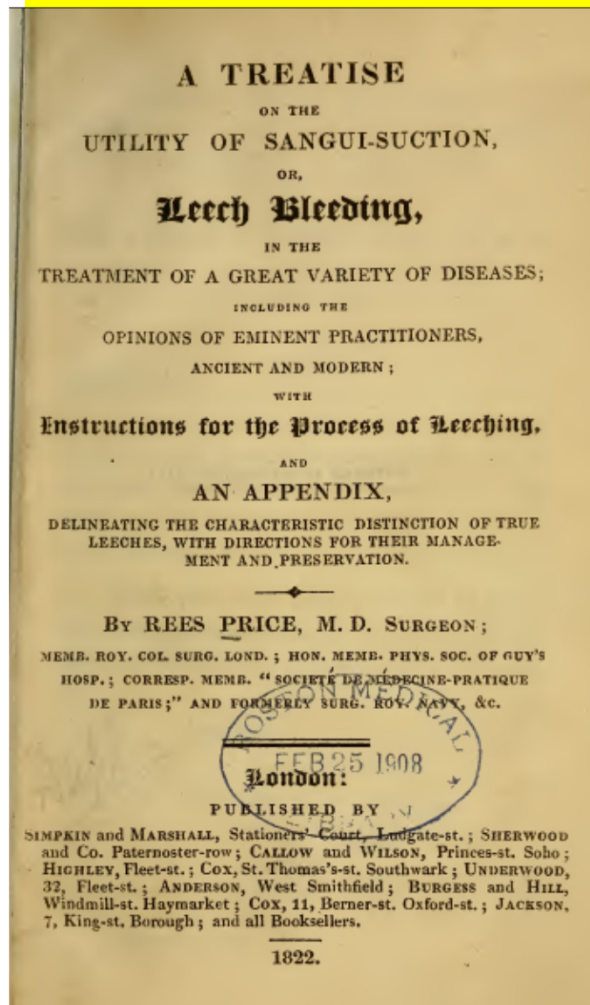
यो वातजो न शूलाय स्यान्न दाहाय पित्तजः ॥११४॥  
कफजो न च पूयाय मर्मजश्च रुजे न यः ।  
अचूर्णश्चूर्णकीर्णाभो यत्राकस्माच्च दृश्यते ॥ ११५ ॥  
रूपं शक्तिध्वजादीनां सर्वास्तान्वर्जयेद्ब्रह्मणान् ।

A.H.SH 4

अशुद्धं चलितं स्थानात्स्थितं रक्तं घ्राणशये ।  
व्यस्तोभवेत्पर्युषितं तस्मात्तस्त्रावयेत्पुनः ॥ ४८ ॥

A.H.SH 4

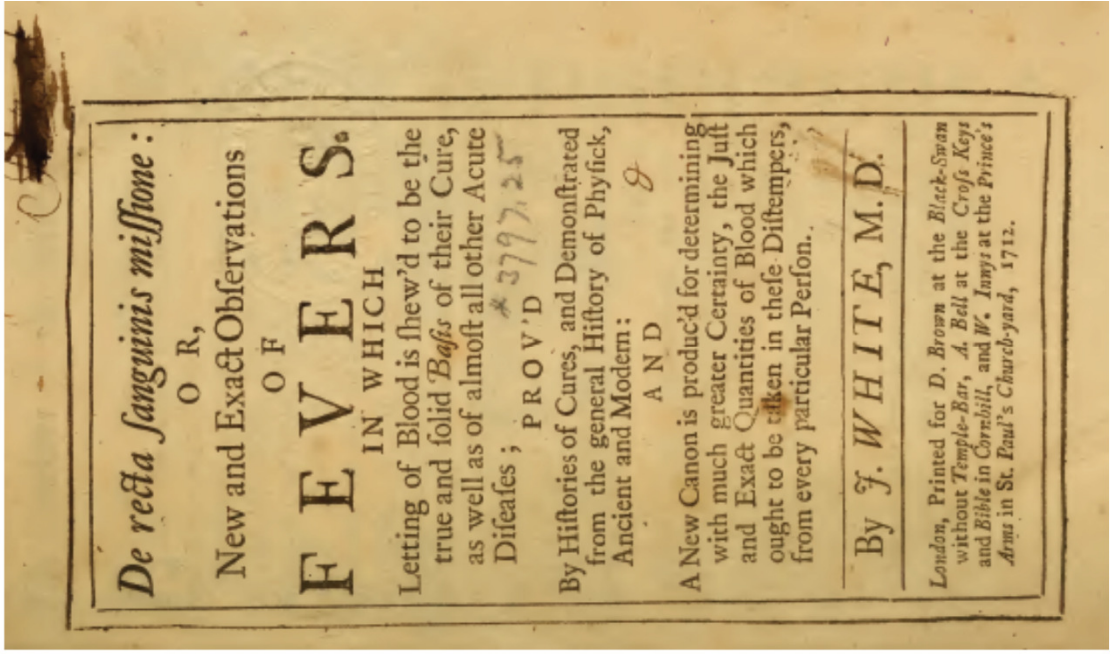
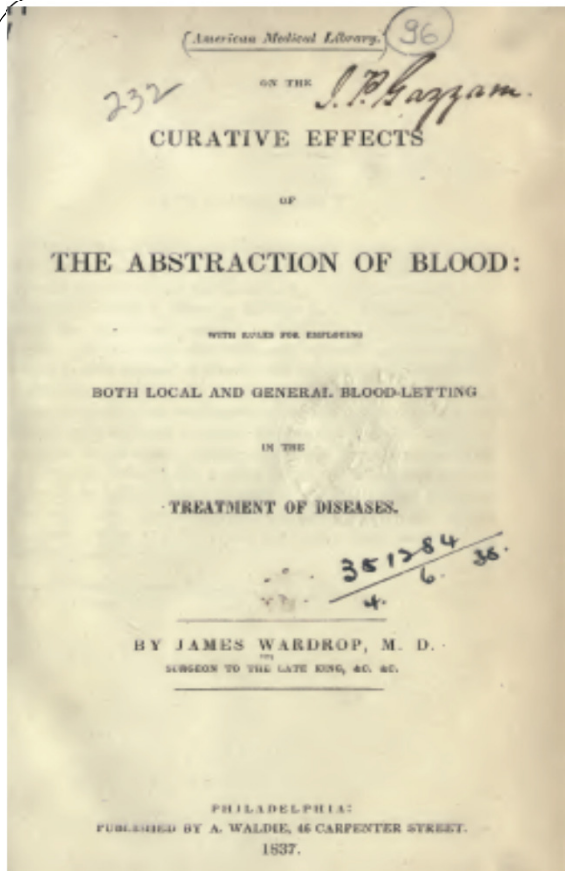
# Widely Practiced Worldwide



It appears, however, that even Hippocrates was quite unacquainted with the use to which we now so constantly subject the insects, called Leeches; and yet it is stated, by a late writer\*,

Since the introduction of the Leech, in the reign of Augustus Cæsar, it has remained in universal request, both by the ancients and moderns. Greece, Italy, and Arabia, are now no longer the confined sphere of its medicinal action; and to the names of Themison, Celsus, Antyllus, Pliny, Galen, Aretus, Oribasius, Ætius Æginetus, Avicenna, &c., are now to be added those of the most celebrated of modern times, whose experience and practice have established its value.





forms of ophthalmia, is also a means of abstracting blood locally, the good effects of which, after other modes of depletion have been unsuccessfully employed, are very striking; leeches have also been used for a similar purpose.

Leeches applied to inflamed gums give great relief, and so also do leeches applied to the mucous membrane of the vagina in cases of inflammation of the uterine organs.

Bleeding in the jugular veins is likewise a most useful mode of abstracting blood in affections of the head, particularly in children, where leeches applied to the neck are often dangerous, from the difficulty of controlling the bleeding, and where the veins of the arm cannot be easily opened.

LECTURES

ON

BLOOD-LETTING;

DELIVERED AT

THE GENERAL DISPENSARY,

ALDERSGATE STREET.

BY HENRY CLUTTERBUCK, M.D.

FORMERLY ONE OF THE PHYSICIANS TO THE GENERAL DISPENSARY.

Philadelphia:

HASWELL, BARRINGTON, AND HASWELL,

293 MARKET STREET.

1839.

4. *Leeches* furnish another mode of drawing blood that has its advantages, as being applicable on some occasions, where other means cannot be conveniently resorted to. Generally speaking, however, as in regard to the other modes of local or topical bleeding, the blood drawn by leeches is discharged too slowly to have much effect on the general system, in the way of counter-impression. Infants, however, are sometimes quickly and powerfully affected, even to fainting, by the application of two or three leeches, which, so far, in them, may answer the purpose of general blood-letting, producing all the effect of venesection in the adult. There is one objection, however, to the use of leeches in children, which deserves attention; namely, the terror they sometimes occasion, with a continuance of angry feelings for an hour or two, while the operation lasts. This is a cause of aggravation in many brain affections of children, where the sensibility and irritability of the system are already greatly in excess. In such cases, therefore, scarification with cupping is often preferable to leeches; and, still more, venesection, if it be practicable, as it often is, either in the arm or neck. By this, not only is the irritation here spoken of avoided, but the disease itself more effectually relieved.

In adults of ordinary strength, leeches, in whatever number applied, are rarely effectual, as a substitute for general blood-letting, in cases of active inflammation, especially if attended by febrile symptoms. By the application of a sufficient number of leeches, a large quantity of blood may, no doubt, be drained from the body, and a corresponding degree of weakness induced; but still often without making that general impression on the system which is

# Modern Era

IV. "On the Action of a Secretion obtained from the Medicinal Leech on the Coagulation of the Blood." By JOHN B. HAYCRAFT, M.B., F.R.S. (Edin.), Professor of Physiology in the Mason and Queen's Colleges, Birmingham. Communicated by Dr. LAUDER BRUNTON, F.R.S. Received March 28, 1884.

[J Postgrad Med](#). 2011 Jan-Mar;57(1):65-71. doi: 10.4103/0022-3859.74297.

**Clinical uses of the medicinal leech: a practical review.**

[Porshinsky BS](#), [Saha S](#), [Grossman MD](#), [Beery Ii PR](#), [Stawicki SP](#).

## Source

Department of Surgery, The Ohio State University Medical Center, Columbus, OH, USA.

## Abstract

The medicinal leech, *Hirudo medicinalis*, is an excellent example of the use of invertebrates in the treatment of human disease. Utilized for various medical indications since the ancient times, the medicinal leech is currently being used in a narrow range of well-defined and scientifically-grounded clinical applications. Hirudotherapy is most commonly used in the setting of venous congestion associated with soft tissue replantations and free flap-based reconstructive surgery. This is a comprehensive review of current clinical applications of hirudotherapy, featuring a comprehensive search of all major medical search engines (i.e. PubMed, Google Scholar, ScientificCommons) and other cross-referenced sources. The authors focus on indications, contraindications, practical application/handling of the leech, and therapy-related complications.

- [Rev Med Inst Mex Seguro Soc.](#) 2009 May-Jun;47(3):335-40.
- **[Leech hirudo medicinalis: a therapeutic alternative available in Mexico].**
- [Article in Spanish]
- [Cornejo-Esquerria A](#), [Talleri-de-Andrea G](#), [de Jesús Blanco-Favela J](#), [Ramos-Mora A](#), [Villarán-Muñoz B](#).
- **Source**
- Centro Médico Nacional de Occidente, Instituto Mexicano del Seguro Social, Guadalajara, Jalisco, México. [bioterioimss@hotmail.com](mailto:bioterioimss@hotmail.com)
- **Abstract**
- Throughout history a diversity of therapeutic properties have been attributed to the leech *Hirudo medicinalis*, however, during the past twenty years its use has proven to be a practical and effective method for the relief of venous engorgement in reconstructive surgery. In Mexico this practice has been limited due to the lack of supply and to the time-consuming process of importation. Based on this need, the animal facilities of the Occidental Biomedical Research Center-IMSS in Guadalajara, Jalisco, has initiated a breeding and reproduction program of this species with the aim at improving its availability as a therapeutic device. The salivary gland of *Hirudo medicinalis* contains one of the most potent natural anticoagulants, known as hirudin, a histamine-like vasodilator, platelet aggregation inhibitors and highly specific proteases, all of which favor venous flow and turn this species into the most useful in the clinical setting. Nevertheless, it is important to know the potential risks of leech therapy since it has been associated with considerable morbidity when adequate precautions are not taken. This review exposes relevant aspects of the medicinal leech, the indications, mechanism of action and the protocol for this therapy.

- [Naturwissenschaften](#). 2011 Dec;98(12):995-1008. doi: 10.1007/s00114-011-0859-z. Epub 2011 Nov 9.
- **Small bite, large impact-saliva and salivary molecules in the medicinal leech, *Hirudo medicinalis*.**
- [Hildebrandt JP](#), [Lemke S](#).
- **Source**
- Animal Physiology and Biochemistry, Zoological Institute, Ernst Moritz Arndt-University, Biotechnikum, Walther Rathenau-Strasse 49 a, 17489, Greifswald, Germany. [jph@uni-greifswald.de](mailto:jph@uni-greifswald.de)
- **Abstract**
- Blood-sucking leeches have been used for medical purposes in humans for hundreds of years. Accordingly, one of the most prominent species has been named *Hirudo medicinalis* by Carl Linne in 1758. Feeding on vertebrate blood poses some serious problems to blood-sucking ectoparasites, as they have to penetrate the body surface of the host and to suppress the normal reactions of the host to such injuries (swelling, pain, inflammation) to remain undetected during the feeding period. Furthermore, the parasites have to take measures to inhibit the normal reactions in host tissues to blood vessel damage, namely hemostasis and blood coagulation (platelet aggregation and activation, activation of thrombin and formation of fibrin clots). During evolution, leeches have acquired the ability to control these processes in their hosts by transferring various bioactive substances to the host. These substances are supposedly produced in unicellular salivary gland cells and injected into the wound at the feeding site through tiny salivary ductule openings in the jaws that the leech uses to slice open the host body surface and to cut blood vessels in the depth of the wound. This review summarizes current knowledge about the salivary gland cells and the biological effects of individual saliva components as well as hints to the potential usefulness of some of these compounds for medical purposes.

- [Handchir Mikrochir Plast Chir.](#) 2007 Apr;39(2):103-7.
- **[Hirudo medicinalis-leech applications in plastic and reconstructive microsurgery--a literature review].**
- [Article in German]
- [Knobloch K](#), [Gohritz A](#), [Busch K](#), [Spies M](#), [Vogt PM](#).
- **Source**
- Plastische, Hand- und Wiederherstellungschirurgie, Medizinische Hochschule Hannover, Carl-Neuberg-Strasse 1, 30625 Hannover. [kknobi@yahoo.com](mailto:kknobi@yahoo.com)
- **Abstract**
- Medical leech therapy has enjoyed a renaissance in the world of reconstructive microsurgery during recent years. Especially venous congestion is decreased using hirudo medicinalis application such as following replantation of amputated fingers or congested flaps. They provide a temporary relief to venous engorgement whilst venous drainage is re-established. Living in symbiosis with Aeromonas hydrophila, who can digest the sixfold blood meal related to their body weight, and a broad number of anticoagulant agents such as the thrombin inhibitor hirudin, apyrase as well as collagenase, hyaluronidase, Factor Xa inhibitor and fibrinase I and II, leeches decrease venous congestion. Laser Doppler flowmetry could demonstrate a significant increase in superficial skin perfusion following leech application 16 mm around the biting zone. Following the initial blood meal accounting for about 2.5 ml, the anticoagulant effect of the various leeches enzymes follows within the next 5-6 hours, which both account for the beneficial effects. Infection associated with leech therapy is a documented complication of leech application, with reported incidences ranging from 2.4 to 20 % and a chinolone antibiotic is currently recommended to face the potential Aeromonas hydrophila infection. Anemia is a second adverse effect during medicinal leech application which has to be taken account with repetitive blood samples. Besides the successful applications of leeches in various applications in plastic and reconstructive microsurgery, randomized-controlled trials are pending to elucidate the value of hirudo medicinalis according to evidence-based criteria above from case series and case studies

# Jaluaka /Leeches

- Natural Available naturally
- Sacred Shankham Chakaram Jalaukam
- Intelligent Differentiate Pure Impure Blood
- Instruments manipulate/ doing karma
- Loaded with numerous Injectable drugs (Hirudin & other active chemical components in its Saliva).

सम्पुक्ताद्दुष्टशुद्धास्त्राजलौका दुष्टशोणितम् ।  
आदत्ते प्रथमं हंसः क्षीरं क्षीरोदकादिव ॥ ४२ ॥

- Can cure many ailments which are difficult to treat conventionally

## **Jalaukavacharana in Vascular Occlusive Syndromes of the Upper Extremity - A Case Report**

- A 41-year-old female in Sep 2011
- black gangrenous left hand with clear line of demarcation with the involvement of almost all digits but without any putrefaction.
- Surgical scars of previous surgery in cubital fossa.
- Previous H/O recurrent attacks of Phlebothrombosis after hospitalization 5 years back.
- treated at K.G.M.U.Lucknow and undergone two sets of Thromboembolectomy in Nov 2010 and Feb 2011.
- Amputation of digits advised.
- Pt instructed condition is progressive and the high Amputation will be required in future



**(C):DrDKDwivedi**



**(C):DrDKDwivedi**



**(C):DrDKDwivedi**



**(C):DrDKDwivedi**



**(C):DrDKDwivedi**





(C):DrDKDwivedi



(C):DrDKDwivedi



(C):DrDKDwivedi



(C):DrDKDwivedi



(C):DrDKDwivedi



(C):DrDKDwivedi





# Post Spinal Injury Neurotrophic ulcer-1

- A female aged about 15 yrs
- Chronic Ulcer in gluteal area -14 yrs
- H/O surgery after birth for Meningo mylocele
- Both Lower Limbs Flaccid

**(C):DrDKDwivedi**



**(C):DrDKDwivedi**



**(C):DrDKDwivedi**





(C):DrDKDwivedi



(C):DrDKDwivedi



(C):DrDKDwivedi



(C):DrDKDwivedi



(C):DrDKDwivedi





## Post Spinal Injury Neurotrophic ulcer-2

- A male aged about 28 yrs
- An ulcer near natal cleft/ Gluteal Area – 9 yrs
- Spinal & Lower Limb Surgery, 10 yrs back after an Accident







(C):DrDKDwivedi



(C):DrDKDwivedi



(C):DrDKDwivedi



(C):DrDKDwivedi



(C):DrDKDwivedi

**(C):DrDKDwivedi**



**(C):DrDKDwivedi**



**(C):DrDKDwivedi**





# Conclusion

- Leeches are Natural ,Sacred & Intelligent Instruments Loaded with numerous Injectable drugs (Hirudin & other active chemical components in its Saliva).
- Neurotrophic Ulcers & some Vascular occlusive diseases can be successfully treated by Jalaukavcharna.
- Can be successfully used for Many such diseases for which no satisfactory conventional management is available.
- Widely Practiced.
- Evidences suggest.

&

So I Practice it.

THANK YOU



THANK YOU

THANK YOU