

TRADITIONAL RAKTMOKSHANA (SIRAVEDHA) AND CONTEMPORARY BLOOD DONATION: A COMPARATIVE REVIEW ON BLOODLETTING

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Article Received on 30 Jan. 2026,
Article Revised on 20 Feb. 2026,
Article Published on 01 March 2026,

<https://doi.org/10.5281/zenodo.18801186>

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How to cite this Article: Mannat Marwaha*¹, Nand Kishor Dadhich², Avadhesh Kumar³. (2026). Traditional Raktmokshana (Siravedha) and Contemporary Blood Donation: A Comparative Review on Bloodletting. World Journal of Pharmaceutical Research, 15(5), 471-488.

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ABSTRACT

Raktamokṣaṇa (Siravedha) is an important *Shodhana* therapy described in Ayurveda for the management of diseases arising from *Rakta Duṣṭi* and *Pitta Doṣha* vitiation. *Acharya Sushruta* accords it prime importance by describing it as *Ardha-Chikitsa*. In contrast, blood donation in modern medicine is a voluntary, standardized public health practice primarily intended to benefit recipients through transfusion. Although both procedures involve venesection, their conceptual foundations, objectives, indications, and outcomes differ significantly. Aim is to comparatively analyse *Raktamokṣaṇa (Siravedha)* and blood donation with respect to their conceptual basis, procedural methodology, donor assessment, and pre- and post-procedural dietetic and disciplinary habits and practices. This study is a literary review based on classical Ayurvedic texts—*Charaka Saṃhita* and *Sushruta Saṃhita*—along with standard commentaries. Modern medical textbooks and peer-reviewed articles related to blood donation were reviewed from databases such as PubMed and Google Scholar. A thematic comparison was carried out, classifying parameters into four steps: donor registration and assessment, pre and post procedural dietetic

and disciplinary practices and intra-procedural considerations including post-procedural care. Department of Swasthviritta Evum Yoga in Ayurved emphasises on prevention and promotion of health in donor/ individual through *Raktmokshana (Siravedha)* and blood donation and thus aiming at promotion of health under the theme- “Blood donation imparting the benefits of *Raktamokshana*”.

KEYWORDS: *Raktmokshana*, *Siravedha*, Blood donation, Bloodletting, Venesection, Ayurveda.

INTRODUCTION

Bloodletting has been practiced across civilizations as a therapeutic and preventive measure. In Ayurveda, *Raktmokshana (Siravedha)* is described as an important *Shodhana* (purificatory) procedure and is considered a principal treatment modality for disorders arising from *Rakta Dushti*. Classical Ayurvedic texts place *Siravedha* among the foremost para-surgical procedures (*Anushastra karma*), emphasizing its disease-specific, individualized application. Sushruta accords *Raktamokshana (Siravedha)* exceptional importance by describing it as *Ardha-chikitsa*, highlighting its central role in managing diseases arising from *Rakta Dushti* and *Pitta Dosha* vitiation. Venesection performed properly is half of the treatment described in *Shalya Tantra* like *Bastikarma* in *Kayachikitsa*.^[1] In contrast, blood donation in modern medicine is a voluntary, standardized public health practice aimed primarily at saving lives through transfusion. While its objective is altruistic rather than therapeutic for the donor, scientific evidence suggests that periodic blood donation may have certain physiological benefits. Despite apparent procedural similarities—venesection and blood removal—the philosophical basis, indications, objectives, and outcomes of *Siravedha* and blood donation differ significantly. An integrative comparison is therefore essential to understand their convergences and divergences in the context of traditional wisdom and contemporary biomedical science.

Comparison and analyses of whole method adopted is categorized in four steps viz. Step 1, including donor registration, donor assessment, procedure methodology, Step 2 and Step 4 which includes pre and post-procedural dietetic and disciplinary practices. Step 3 emphasizes on things to be done and taken care off during bloodletting for both the procedures. It provides an understanding of similarities and differences between them. This comparison includes their conceptual basics, primary objective, nature of procedure, types, indications, individualization, Pre- Procedure preparations, Pre Procedure care/ dietary instructions/

advise, Pre- Procedure care/ disciplinary instructions/ advise, location and size of puncture, selection of vein, instrument used to puncture vein, quantity of blood drained, time taken for procedure, removal of fate blood, any signs observed, seasonal considerations, assessment parameters before procedure, pre procedure preparations, post procedure care/ dietary and disciplinary instructions, post monitoring focus, beneficiary, any treatment for defective or wrong blood draining, defective puncturing, follow up, effect of procedure. *Raktmokshana (Siravedha)* focuses on donor health whereas, blood donation emphasizes on benefiting recipient health.

MATERIAL AND METHODS

Study Design

The present study is a literary review–based comparative study.

Ayurvedic Sources: Classical Ayurvedic texts including *Charaka Samhita* and *Sushruta Samhita* long with their standard commentaries, were reviewed. Relevant verses and descriptions pertaining to *Raktamokṣaṇa (Siravedha)* were extracted and analysed within the Ayurvedic conceptual framework.

Modern Medical Sources: Standard modern medical textbooks on physiology, haematology, and transfusion medicine were consulted. Peer-reviewed articles related to blood donation, therapeutic phlebotomy, and the physiological effects of blood removal were retrieved from databases such as PubMed and Google Scholar.

Method of Analysis: A thematic comparison was carried out focusing on: Conceptual basis, objectives, indications and contraindications, procedural methodology and care, pre and post-dietetic and disciplinary habits, assessment parameters, systemic effects and outcomes. The parameters for comparison were organized into four sequential steps to enable systematic and structured analysis.

AIMS AND OBJECTIVES

1. To compare the registration procedures and donor assessment criteria adopted for *Raktamokṣaṇa (Siravedha)* and blood donation.
2. To identify and analyse the similarities and differences in procedural methodology and related influencing factors between *Raktamokṣaṇa (Siravedha)* and blood donation.
3. To study and compare the pre- and post-procedural dietetic and disciplinary practices advised to donors undergoing *Raktamokṣaṇa (Siravedha)* and blood donation.

4. To explore potential integrative insights from both systems that may contribute to preventive and therapeutic healthcare practices.

Traditional *Raktmokshana* (*Siravedha*) and contemporary blood donation: A comparison

The study parameters for comparison between *Raktamokshana* (*Siravedha*) and Blood donation are classified into 4 steps:

Step 1: Registration and assessment of a donor.

Step 2: Pre dietetic and disciplinary habits of donor.

Step 3: At the time of Blood donation (Indications including medical history/ mini-physical check-up)

Step 4: Post dietetic and disciplinary habits of donor.

Step 1: Registration and assessment of a donor

***Raktmokshana* (*Siravedha*):** After registration *Swedana* (hot fomentation) and *Snehana* (anointed) should be done with oily preparations on patient/ volunteer. At proper season (not in rainy or winter season) the patient should be brought near surgeon and made to sit or lie down and the part to be incised upon should be tied, neither too loosely nor too tightly with any accessories such as cloth, linen, etc. then the vein should be duly opened with proper instrument. Venesection should not be performed in too hot or too cold or windy environment.^[2]

Indications of *Siravedha* in Ayurved are *Mukhpaka* (stomatitis), *Akshiraga* (redness in eyes/ any inflammation in eye), *Puti gharana asyaa gandhita* (rhinitis, halitosis), *Gulma* (abdominal tumour), *Upkusha* (mouth ulcer), *Visarpa* (erysipelas), *Raktapitta* (any bleeding through bodily orifices), *Pramilaka* (person in a habit of continuous thinking), *Vidradhi* (abscess), *Raktameha* (haematuria), *Pradara* (menorrhagia), *Vatashonita* (gout), *Vaivarnya* (pallor), *Agnisada* (suppressed digestive fire), *Pippasa* (thirst), *Gurugatrata* (heaviness in body), *Santapa* (burning sensation), *Atidaurbalya* (excessive weakness), *Aruchi* (anorexia), *Shirsarukka* (headache), *Vidhaha Annapanasya Tikta Amla Udgara* (bitter sour eructation after diet and drinks not digested properly), *Lavanasyata* (saline taste in mouth), *Sweda Sharira Daurgandhya* (excessive sweating, foul smell of the body), *Mada* (any toxication), *Kampa* (shivering), *Swasakshaya* (aphonia), *Tandranidra Atiyoga* (drowsy, excessive sleep), *Tamascha Atidarshanam* (frequent faint attacks), *Chardi* (vomiting), *Atisara* (diarrhoea), *Kandukotha pidika Kushta Charamdal Adi* (pruritic, eruption, urticaria, pimples,

obstinate skin disease including leprosy, dermatitis etc.).^[3] In *Swastha* (healthy person) Diseases of the skin, tumours, swelling and diseases arising from blood will never occur in persons indulged in bloodletting (generally in *Sharada Ritu*).^[4]

Table No. 1: Contraindications of *Siravedha* in Ayurved.

S.No.	Contraindications for <i>Siravedha</i> ^[5,6]	
1.	Age: <i>Bala</i> (age less than 30 years) and <i>Sthavirya</i> (old age more than 70 years)	Diseases: <i>Visarpa</i> (erysipelas), <i>Vidradhi</i> (abscess), <i>Pliha roga</i> (spleen disorders), <i>Agnisada</i> (dyspepsia), <i>Jwara</i> (fever), <i>Mukharoga</i> (diseases of oral cavity), <i>Netraroga</i> (eye disorders), <i>Shiroroga</i> (diseases related to head), <i>Trishna</i> (thirst), <i>Lavanasyata</i> (salty taste of mouth), <i>Kushtha</i> (Skin disorders), <i>Vatarakta</i> (gout), <i>Raktapitta</i> (blood oozing disorders).
2.	Physical condition: <i>Ruksha</i> , <i>Kshatkshina</i> (wounded and debilitated), <i>Parishranta</i> (tired person), <i>Krishha</i> (emaciated), <i>Garbhani</i> (pregnancy), <i>Kasa</i> and <i>Shwasa</i> (cough and respiratory diseases), <i>Vridhha Jwara</i> (chronic fever)	
3.	Mental condition: <i>Bhiru</i> (timid), <i>Klibata</i> (impotent)	
4.	Addiction: <i>Madyapana</i> (alcoholic)	
5.	Medical condition: <i>Vamit</i> and <i>Virikta</i> (post <i>Vaman</i> / medicated emesis) and <i>Virechana</i> / medicated purgation)	
		Healthy individual: In <i>Sharad Ritu</i> (autumn season) mid-September to mid-November

Blood Donation: Registration comprises name, age/ DOB, gender, occupation, father's or husband's name, address for communication, permanent address, telephone, mobile no., Email, UHID, IPID.

Other questions asked are: Have you donated blood previously? if yes, how many times and date of last blood donation. Have you donated blood within 3 months (for male) or 4 months (for female) or SDP within 48 hours? Did you experience any ailment, difficulty or discomfort during previous blood donation? If yes, what was the difficulty(s). Do you feel well today? Did you have something to eat in last 4 hours? Did you sleep well last night? Have you been refused as a blood donor, or told not to donate? Will you drive public transport, heavy duty vehicle, piloting, sky diving, deep sea driving, mountaineering, or work with machinery after blood donation? Do you have any reason to believe that you you may be infected by hepatitis/malaria/ HIV/ AIDS/ venereal disease? Are you suffering from common cold, cough, sinusitis, fever? Have you taken antibiotics in last 14 days? Have you read the educational material and had your questions answered? Have you taken alcohol in past 24

hours? Any travel history outside Uttarakhand in last 28 days? Do you suffer from migraine frequently (within a week)? Are you taking or have any of these in past 72 hrs? (Aspirin, steroids, any other medicine?), In last two weeks have you been vaccinated/ immunized for any of the following- covid 19, diphtheria, tetanus, rabies/prophylaxis, plague, polio injectable, hepatitis B vaccine, papilloma vaccine, meningococcal, Pneumococcal, pertussis, typhoid, cholera. In last two weeks, have you suffered from any of the following diseases- chicken pox, measles, mumps, diarrhoea, cystitis/ urinary tract infection. In last four weeks, have you taken any of the following vaccine/ serum? – Live attenuated vaccine like polio, measles, mumps, yellow fever, Japanese encephalitis, influenza, typhoid, cholera, hepatitis A, anti-tetanus serum, anti-venom serum, anti-diphtheria serum, anti-gas gangrene serum. In last three months have you had any history of malaria? In last six months have you had any history of any of the following? – Unexplained weight loss, repeated diarrhoea, dengue/ chikungunya, minor/dental surgery viz. tooth extraction, accidental needle prick, continuous fever, swollen glands, peripheral stem cells, acute kidney infection. In last one year have you had any history of following- yourself/spouse/partner had hepatitis B/C or blood transfusion, major surgery, typhoid, immunoglobulin and hepatitis B immunoglobulin, rabies vaccine following animal bite, hepatitis A/E, inmate of jail or any other confinement, bone or skin grafting, organ/tissue or bone marrow donation, GI endoscopy, body piercing, tattooing. In last two years have you had any history of following- tuberculosis, osteomyelitis. Do you suffer from or have suffered from any of the following disease?- Heart disease, kidney disease, epilepsy, cancer/malignancy, diabetes, tuberculosis, hepatitis B/C, abnormal bleeding tendency, jaundice, severe allergic disease, convulsions, thyroid/other endocrine disorder, chronic liver disease/ liver failure, asthma on steroids, lung disease, leprosy, STD, psychiatric disorder, kala azar, stomach ulcer, autoimmune disorder, haemolytic anaemia, recipient of organ/ stem cells transplantation.

For female donors- Are you pregnant? Have you had an abortion in last 6 months? Do you have a child less than one year old? Is your child breast- feeding? Are you having your periods today?

Some self-exclusion questionnaire includes- Do you practice safe sex? Are you HIV positive or do you think you may be HIV positive? Is your reason for donating blood to undergo an HIV test? In past 6 months- Have you had sexual activity by paying money or Vice versa? Have you had multiple sex partner? Victim of sexual assault? Sex with someone whose

background you do not know? In past 12 months- Have you suffered from sexually transmitted disease? Have you ever injected yourself with drugs not prescribed by doctor? Do you think any of the above questions may be true fro your sex partner? Do you consider your blood safe for transfusion to a patient?

Donor counselling is done and informed consent is taken.^[7]

Table No. 2: Comparison between parameters for *Raktmokshana (Siravedha)* and Blood donation for registration and assessment of a donor.

S.No.	Parameters	<i>Raktmokshana (Siravedha)</i>	Blood Donation
Step 1: Registration and assessment of a donor.			
1.	Conceptual Basis/ Identified as	<i>Rakta/ Pitta Dushti</i> pacifier	Transfusion Medicine
2.	Primary Objective	Therapeutic purification of <i>Rakta</i>	Saving recipient's life
3.	Nature	1. <i>Swastha</i> - For prevention 2. <i>Atura</i> - For curative	Altruistic and supportive
4.	Types	1. <i>Shastra- Vishravana</i> a. <i>Prachhanna</i> b. <i>Siravedha</i> 2. <i>Anushatra- Vishravana</i> a. <i>Shringavacharana</i> b. <i>Jalukavacharana</i> c. <i>Alabu Avacharana</i> d. <i>Ghati Yanta</i>	1. Whole blood donation 2. Power red (for double red cell) 3. Platelet donation 4. Plasma Donation
5.	Indications	Skin disorders, inflammatory conditions, <i>Rakta</i> -related conditions	Anaemia, trauma, surgery, malignancy
6.	Individualization	Highly individualized	Standardized

Step 2: Pre dietetic and disciplinary habits of donor

***Raktmokshana (Siravedha)*:** A liquid diet consisting of articles pacifying bodily *Doshas*, *Yavagu* (gruel) should be given first.^[8,9] For donor health benefit *Raktmokshana* should be done by the person who has habit of taking *Ati-Lavana-Kshara-Amla-Katu* (excessive saline, alkaline, acidic and pungent food), consuming excessive pulses like *Kullatha* (*Dolichosbiflorus* Linn.), *Masha* (*Phaseolus radiates* Linn.) and vegetables like *Nispava* (type of vegetable), *Pindalu* (*Dioscorealata* Linn.), all tubers and raw vegetable like radish etc, *Tila Tail* (sesame oil), Non-veg items like meats of aquatic and animals of marshy areas or animals living in wholes. Excessive and regular use of curd, *Amla Mastu* (sour whey), *Shukta* (vinegar), *Sura* and *Sauviraka* (wine). Rotten, purified food and *Virudha Ahara* (incompatible

diets).

Vihara (disciplinary habits) includes person in habit of *Divaswapana* (day sleep) especially immediate after consuming meals, taking *Drava* (liquid), *Snighdha* (unctuous) and *Guru* (heavy) food or having meals before previous meals are digested, excessive exposure to sun or fire, who has habit of suppressing urges of vomiting, urine and faeces. Other habit including excessive anger, who has not taken bloodletting therapy in *Shard Ritu* (autumn) as prevention to avoid *Raktaj Vikara* (disorders of blood), who has habit of smoking and drinking should undergo *Raktmokshana* regularly.^[10]

Blood Donation: It is recommended to eat at your regular mealtimes and drink plenty of fluid before you donate blood. Have a snack at least four hours before you donate, but do not eat too much right before the donation. Avoid taking aspirin or aspirin-like anti-inflammatory medication, Avoid caffeinated drinks in the 72 hours prior to your donation, because aspirin inhibits the function of blood platelets. If you have taken aspirin within this period, your blood platelet component cannot be transfused to a patient.^[11]

Table No. 3: Comparison between parameters for *Raktmokshana* (*Siravedha*) and Blood donation for pre dietetic and disciplinary habits of donor.

S.No.	Parameters	<i>Raktmokshana</i> (<i>Siravedha</i>)	Blood Donation
Step 2: Pre dietetic and disciplinary habits of donor.			
1.	Pre- Procedure preparations	Informed consent, proper <i>Asana</i> (sitting), tourniquet, antiseptic conditions	Informed consent, proper position, tourniquet, antiseptic conditions
2.	Pre Procedure care/ dietary instructions/ advise	Advise: <i>Laghu</i> (light), <i>Snighdha</i> (unctuous), non <i>Abhishyandi</i> food, <i>Dosha Shaamk</i> (pacifying) <i>Ahara</i> -to facilitate smooth expulsion of <i>Dushta Rakta</i> and prevent <i>Vata Dosha</i> aggravation. Avoid: <i>Ati-Ushna</i> , <i>Ati-Snigdha-Amla</i> , <i>Lavana-Kashaya Rasa</i> .	Advise: Light meal 2-4 hours before donation. Never empty stomach to prevent hypoglycaemia, vasovagal syncope. Avoid: Alcohol 24 hours prior.
3.	Pre- Procedure care/ disciplinary instructions/ advise	Advise: <i>Vishranti</i> (rest), Follow <i>Bramacharya</i> and <i>Mansika prasadana</i> (calming mind). Avoid: <i>Ati Shrama</i> (exertion), <i>Ati Vyayama</i> excessive exercise). Avoid <i>Krodha</i> (anger), <i>Bhaya</i> (fear), <i>Shoka</i> (grief), <i>Snana</i> avoided immediately before donation. Avoid exposure to <i>Atapa</i> (sun), <i>Vayu</i> (wind), <i>Taap</i> (heat)	Avoid: strenuous activity, adequate sleep advised. Reassurance advised. Emotional state not emphasized.

Step 3: At the time of Blood donation (Indications including medical history/ mini-physical check-up)

Raktmokshana (Siravedha): The patient whose vein is to be opened upon should be made seated on a stool to height of an *Aratni* (distance of elbow from tip of small finger) with his/her face turned towards the sun. He should keep his legs in a drawn up or contracted posture resting his elbows (*Kurpara*) on his knee-joints and the hands with his two thumbs closed in his fist placed on upper ends of his *Manyas* (sterno-mastoid muscles). Attendant is the asked to take hold on both sides of tourniquet so as to raise the vein and to press bandage for good out flow of blood. Patient is asked to sit with his mouth full of air and confine his breath till surgeon performs the puncture. For opening a vein in arms, the patient should be asked to sit easily and fixedly with his thumbs closed in his fists. Tourniquet should be tied four fingers above the puncture place and ligature is made. An incision to the depth of barley should be made with a *Vrihimukha* instrument in the muscular parts of the body, whereas the instrument should be thrust only half of the depth of or to the depth of a *Vrihi* seed in other places. An incision over a bone should be made with the *Kutharika* to the half depth of a barley.^[12]

Table No. 4: Sight/ location of Raktmokshana (Siraveddha) in different diseases.^[13]

Disease	Sight/ location of <i>Siraveddha</i>
<i>Vata Roga</i> such as <i>Kroshutshirsha</i> (synovites), <i>Pangu</i> (maimedness), <i>Khanja</i> (lameness)	Vein of <i>Jangha</i> (lower calf), 4 fingers above the <i>Gulpha</i>
<i>Apchi</i> (scrofula)	2 fingers below <i>Indrabasti Marma</i>
<i>Gridhrasi</i> (sciatica), <i>Vishvachi</i>	4 fingers above and below <i>Janu</i> (knee-joint)
<i>Galganda</i> (goitre)	Veins attached to roots of <i>Uru</i> (thigh)
<i>Pliha vridhhi</i> (enlarged spleen)	Veins near <i>Kurpara- Sandhi</i> (elbow joint) of left hand or that inside the fourth and fifth fingers
<i>Yakrittodar</i> , <i>Kaphodar</i> (diseases of liver)	Veins near <i>Kurpara- Sandhi</i> (elbow joint) of right hand or that inside the fourth and fifth fingers
<i>Pravahika</i> (diarrhoea) with <i>Shoola</i> (colic)	Vein within 2 fingers width around <i>Shroni</i> (pelvis)
<i>Parikartika/ Parivartika</i> (phimosis), <i>Updansha</i> (chancre), <i>Shook</i> and <i>Shukra Dosh</i> a (seminal disorders)	Veins at middle of penis
<i>Mutavridhhi</i> (hydrocele)	Vein on either side of scrotum
<i>Dakodar</i> (ascites)	Vein 4 fingers below the naval and on the left side of <i>Sevani</i> (suture)
<i>Antar Vidhradhi</i> (internal abscess), <i>Parshavshoola</i> (pain in chest sides)	Veins in the region between breast and left armpit
<i>Avbahuka</i> and <i>Bahushosha</i> (atrophy of	Veins between two shoulders

hand)	
<i>Trityaka Jwara</i> (fever alternate day)	Veins inside the <i>Triksandhi</i> (scapular region)
<i>Chaturthak Jwara</i> (fever with two-day gap)	Vein joined with either side of and below the shoulder joint
<i>Apasmara</i> (epilepsy)	Middle vein adjacent to joint of <i>Hanu Sandhi</i> (jaw bones)
<i>Ummada</i> (insane/ mental disorders)	Vein between temple bone and edge of scalp or those in <i>Apanga</i> (outer canthus of eyes)
<i>Jivha-danta Roga</i> (tongue and teeth disorders)	Veins of <i>Adho Jivha</i> (on the under surface of tongue)
<i>Karna Shula</i> (earache)	Veins along the region above the ears
<i>Nasa</i> (diseases of nose)	Veins at tip of nose
<i>Timira</i> (cataract), <i>Akshipaka</i> (ophthalmia), <i>Adhimantha</i> () and eye disorders	Veins of <i>Apanga</i> (outer canthus of eyes)

Table No. 5: Signs of inadequate, adequate, excess drainage of blood in *Raktmokshana* (*Siravidha*).^[14]

<i>Hina Viddha Lakshana</i> (signs of inadequate drainage of blood)	<i>Samyak Viddha Lakshana</i> (signs of adequate drainage of blood)	<i>Ati Viddha Lakshana</i> (signs of excess drainage of blood)	<i>Samyak Viddha Lakshana</i> (signs and symptoms that indicate successful execution of venesection) ^[15]
Iching, oedema, burning sensation, redness, inflammation, pain	Lightness in the body, reduction in the disease frequency, reduced pain, sensual pleasure	Headache, blindness, <i>Adhimantha</i> , <i>Timira</i> , <i>Dhatukshaya</i> , convulsions, burning sensation, hemiplegia, monoplegia, cough, anaemia and death.	Successful execution is considered when proper puncturing has been done, blood flows out in a stream and bleeding stops in 1 <i>Muhurat</i> (48 minutes) Vitiated blood flows first indicated same as crushed flowers of <i>Kusumbha</i> . When drainage stops itself, it's considered as pure (unvitiated)

Blood Donation: Initial Screening is done, which includes taking weight, pulse, Hb, HCT (%), Pit. Count ($10^3/\mu\text{l}$), BP (mmHg), temperature, blood group (optional), Name of staff screening the donor, signature, date, time. Medical and systemic examination- Accepted or Deferred with reason. Name of medical officer, signature and date. Phlebotomy- includes Donor No., Type of bag, segment no., start time, end time, venipuncture site (right/ left arm), in case donation done by second prick, was verbal consent taken? Name of phlebotomist, signature, visual inspection. Watching donor reaction: Vaso vagal, convulsion, any other,

duration of observation, found fit, referred, treatment given, signature of doctor. Lastly, donor's signature is taken to confirm that "I am feeling fine after donating blood and resting for some time under observation and I am leaving at my own will after understanding post donation measures."^[16]

Table No. 6: Comparison between parameters for *Raktmokshana (Siravedha)* and Blood donation for at the time of blood donation.

S.No.	Parameters	<i>Raktmokshana (Siravedha)</i>	Blood Donation
Step 3: At the time of Blood donation			
1.	Location	Multiple as per disease	Preferred site is medial cubital vein (antecubital fossa)
2.	Selection of vein	Disease specific <i>Sira</i> (vein)	Peripheral veins
3.	Size of puncture	In muscular area- <i>Yava</i> (size of barley grain) using <i>Vrihimukha Shastra</i> (rice grain shaped/ needle-like instrument) In other areas- ½ <i>Yava</i> or 1 <i>Vrihi</i> (rice) using <i>Vrihimukha Shastra</i> Veins over bones- ½ <i>Yava</i> using <i>Kutharika Shastra</i> (small surgical axe or an adze)	Puncture through butterfly needle (winged infusion set/ scalp vein set) Or Hypodermic needle
4.	Instrument used to puncture vein	<i>Vrihimukha Shastra</i> Or <i>Kutharika Shastra</i>	16G (gauge) inside diameter:0.053 inches and outer diameter 0.065 inches or sometimes 17G or even 20 G. stainless steel.
5.	Quantity of blood drained	Variable, disease specific Maximum up to 1 <i>Prastha</i> (640ml) (Su.su. 8/16)	Fixed (350-400 ml)
6.	Time taken for procedure	Self-limiting/ Sign based/ or 1 <i>Muhurat</i> (48 minutes)	Time taken to collect fixed quantity usually around 10 minutes.
7.	Removed blood fate	Discarded	Collected in specialized plastic (often DEHP-plasticized PVC) containing anticoagulant, sent for testing, separated into components, kept at 4 to 24°C
8.	Any sign suggesting purity – impurity of blood drawn	Yellow colour like <i>Kusumbha</i> is observed in initial drained impure blood	No such explanation
9.	Seasonal consideration	Important (for preventive measures in Sharad Ritu)	Not considered
10.	Things to be noted before	<i>Rogibala</i> (patient strength) <i>Prakṛti</i> (constitution)	Haemoglobin concentration Body weight

procedure/ Assessment parameters	<i>Doṣa</i> predominance <i>Vaya</i> (age) <i>Kāla</i> (season and time) Digestive and metabolic status (<i>Agni</i>)	Blood pressure and pulse Medical history and lifestyle risk factors
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Table no. 7: Twenty types of *Dushta Vyadhana* (defects related to an opened vein).^[17]

S.No.	<i>Dusta Vyadhana</i> (Defective venesection)	<i>Lakshana</i> (signs)
1.	<i>Dhurviddha</i> (badly incised)	vein incised with an extremely slender instrument and marked by extremely painful swelling
2.	<i>Atividdha</i> (over-incised)	Vein incised more than recommended and no blood comes out properly or enters internal channels or excessive bleeding due to the large incision
3.	<i>Kunchita</i> (crooked or contracted)	Vein in which incision is made in curving manner and is attended with foregoing results
4.	<i>Picchitta</i> (thrashed)	An incised vein presenting a flattened or thrashed appearance on account of being opened with <i>Kunthita</i> (blunt) knife
5.	<i>Kuttitha</i> (lacerated)	Where incision is made on the sides of the vein instead of body of vein
6.	<i>Aprasrutha</i> (bleeding failed)	An incised vein, unattended with any bleeding owing to patient's fright, coldness or loss of consciousness
7.	<i>Atyaudirna</i> (widened incision)	A vein with large incision in its body made with sharp and flat-edged instrument
8.	<i>Anteabhihata</i> (punctured deeply)	An opened vein where blood oozes out in small quantity
9.	<i>Parishushka</i> (dried up)	An opened vein in anaemic patient stuffed with <i>Vayu</i> (as its dried up)
10.	<i>Kuunita</i> (partially incised)	A vein opened to a quarter part of the proper length and scanty outflow of blood is observed
11.	<i>Vepita</i> (quivering)	A vein which trembles owing to its being tourniquet at wrong place and blood does not flow out in consequence
12.	<i>Anutthita-viddha</i> (punctured without proper raising)	A vein incised without being previously properly raised up and results in absence of bloodletting
13.	<i>Shastrahata</i> (knife cut)	A vein fully cut and attended with excessive bleeding and create defect in related organ
14.	<i>Tiryag Viddha</i> (obliquely incised)	A vein incised with an instrument applied obliquely and is not full opened
15.	<i>Apaviddha</i> (wrongly incised)	A vein incised several times and every time incised with improper instrument
16.	<i>Avyadha</i> (unfit for opening)	A vein unfit for opening or whose opening is forbidden in <i>Shashtra</i> (Ayurvedic texts)
17.	<i>Vidruta</i> (erratic)	A vein opened carelessly and hastily
18.	<i>Dhenuka</i>	A vein bleeding again and again owing to its being repeatedly pressed and successively opened

19.	<i>Punah- punarviddha</i> (repeated incised)	A vein variously cut owing to its being pierced into the same part with an extremely slender-pointed instrument
20.	<i>Marma viddha</i> (incision on <i>marma</i>)	If a vein at <i>Mansa Marma</i> , <i>Snayu Marma</i> , <i>Asthi Marma</i> , <i>Sira Marma</i> or <i>Sandhi Marma</i> is incised causes severe pain, oedema, deformity or even death

Step 4: Post dietetic and disciplinary habits of donor

Raktmokshana (Siravedha): A person who undergo *Snehana Karma*, *Swedana*, *Vaman*, *Virechana* or treated with both *Anuvasana* and *Asthapana Basti* or done with *Siraveddha* should avoid *Krodha* (anger), *Ayasa* (physical labour), *Maithun* (sexual intercourse), *Divaswapana* (day sleep), *Vaga- Vyayama- Adhayayan-Sthana Asana- Chakramana* (excessive talking- exercise- study/reading-long sitting-walk/ traveling), *Sheet-Vata-Atapa* (standing long in cold or windy or under direct sun), *Virudha- Asatamya- Ajirna* (incompatible diet- uncongenial- eating before digesting previous meal) until strength is fully regained or for at least one month.^[18]

Post dietetic habit includes consumption of food and drinks which are neither *Ati-Ushna* (very hot) nor *Ati-Sheeta* (very cold) and are *Laghu* (light and stimulant of digestion) are recommended as *Ati- Sheet*a will suppress *Agni* and *Ati-Ushna* will add instability to *Rakta* (blood). *Laghu Ahara* stimulates digestive power.^[19] Bloodletting is followed by tissue depletion and *Vata* aggravation, hence, *Laghu* (light), demulcent, haematitic and only slightly sour or not sour diet should be consumed.^[20] Use of *Ghrita* to pacify *Vata* and potentiate *Agni* is advised.^[21] *Agni* or enzymes responsible for digestion and metabolism in a *Shodhita Purusha* (purified person through *Raktmokshan*) grows strong, becomes stable and capable of digesting all types of food (making all seven *Dhatu*) by gradual administration of *Peyaadi* (thin gruels).^[22] Post disciplinary habits include *Vishram* (rest), avoid excursion, sexual activity as *Vata Dosh*a is aggravated already.

Blood Donation: post dietetic and disciplinary advice over next 48 hours includes drinking plenty of fluids to replenish lost volume during donation, avoid lifting heavy weights with the donation arm or participating in strenuous physical activities or sports to prevent bruising of venepuncture site and dizziness. If donor feels dizzy, unwell or have cold sweats, he should Take a seat or lie down immediately, preferably with your feet raised, until the feeling passes, loosen any restrictive garments and keep breathing smoothly, keep calm and take slow and long deep breaths, if the condition does not improve or for any reason something doesn't feel

right, call the number provided. Care for the venepuncture site: In uncommon situations where fresh bleeding occurs after the plaster is removed, put gentle pressure on the venepuncture site, raise your arm for 3–5 minutes and apply a bandage to the site. The bandage or the dressing can be removed after 5 hours. If you notice bruising around the venepuncture site, it is usually caused by bleeding into the tissue underneath the skin. It will usually resolve in a week's time. If you feel pain or discomfort, applying a cold compress to the area may help. If the venepuncture site becomes swollen or blue or you experience pain or numbness in the donation arm, please call (insert telephone number) for advice or consult a doctor.^[23]

Table No. 8: Comparison between parameters for *Raktmokshana (Siravedha)* and Blood donation for post dietetic and disciplinary habits of donor.

S.No.	Parameters	<i>Raktmokshana (Siravedha)</i>	Blood Donation
Step 4: Post dietetic and disciplinary habits of donor			
1.	Post-care/ Procedure dietary instructions	Advise: Massage, dressing, Strict <i>Pathya-Apathya</i> , drinking <i>Yavagu. Laghu, Snigdha</i> , and <i>Pitta-Shamaka</i> diet. Warm, easily digestible foods (e.g., rice gruel, soups) Avoid: spicy, sour, alcoholic, and heavy foods These measures help restore <i>Agni</i> and prevent re-vitiating of <i>Rakta</i> .	Dressing, minimal instructions for diet, consume fluids, increase iron-rich food intake, at a normal balanced meal.
2.	Post-care/ Procedure disciplinary instructions	Advise: Adequate rest Avoid: exertion, sexual activity, excessive heat, or sun exposure. Restrictions may extend for one or more than one month depending on the extent of bloodletting.	Avoid strenuous activity, lifting weight, physical activity, sports for 48 hours,
3.	Post monitoring focus on	Signs of proper bloodletting (<i>Samyak Lakṣaṇa</i>) Relief of disease symptoms Absence of complications such as excessive bleeding or fainting	Vital signs Local site reactions Immediate adverse donor reactions Long-term follow-up is generally unnecessary.
4.	Beneficiary	Donor	Recipient/ secondary donor
5.	Frequency	Performed until therapeutic benefit is attained. It further depends on disease persistence, patient strength, classical guidelines. Repeated <i>Siravedha</i> without indication is	After 3 months

		contraindicated.	
6.	Treatment for <i>Hina</i> or <i>Ati Strava</i> (less or excessive drained than suggested)	Yes	No
7.	Defective puncturing Types	<i>Dushta Vyadhana</i> – 20 Types	No such explanation
8.	Follow up	As per <i>Pravara</i> , <i>Madhyam</i> or <i>Avara Shudhi Lakshana</i> or one month	If any complaint of dizziness, hypotension, fatigue etc.
9.	Procedure affecting any parameter	<i>Agni- Mandagni</i>	Blood volume

DISCUSSION

The present comparative review highlights that although *Raktamokṣaṇa (Siravedha)* and contemporary blood donation share the common procedural element of venesection, their underlying philosophies, objectives, and clinical frameworks are fundamentally different. *Siravedha* is deeply rooted in Ayurvedic principles of *Doṣha–Dhatu* balance and is primarily a therapeutic and preventive intervention aimed at correcting *Rakta Duṣṭi* and *Pitta* vitiation through individualized assessment of *Prakṛti*, *Bala*, *Kala* and *Agni*. In contrast, blood donation is a standardized, altruistic public health practice focused on recipient benefit, with donor safety ensured through rigorous biomedical screening. The comparison reveals notable overlaps in pre-procedure preparation, aseptic technique, and post-procedure care, suggesting convergent practical wisdom despite divergent conceptual bases. Importantly, classical Ayurvedic emphasis on seasonal prophylaxis, dietary regulation, and long-term post-procedural discipline offers insights that may enhance donor well-being in modern blood donation programs. Integrating preventive perspectives from Ayurveda could strengthen donor-centric health promotion without compromising transfusion safety. Department of Swasthviritta Evum Yoga in Ayurved emphasises on prevention and promotion of health in donor/ individual through *Raktmokshana (Siravedha)* and blood donation and thus aiming at promotion of health under the theme- “Blood donation imparting the benefits of *Raktamokshana*”.

CONCLUSION

Siravedha is a highly individualized, disease-specific therapeutic intervention aimed at purifying vitiated *Rakta* and restoring physiological balance, with detailed guidelines regarding season, site, quantity of bloodletting, and post-procedure regimen. Blood donation

follows standardized protocols focusing on donor safety and recipient benefit, with fixed volumes and limited post-donation restrictions. While *Siravedha* and blood donation share procedural similarities, they differ fundamentally in philosophy and objectives. *Siravedha* is donor-centric and therapeutic, whereas blood donation is recipient-centric and altruistic. An integrative understanding of both may offer insights into preventive and therapeutic healthcare practices.

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