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Study of Sira Mentioned In the Management of Yakruddalyudar W.S.R To Siravyadha

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ABSTRACT

Introduction- Ayurveda is an ancient holistic healing system that emphasizes the balance between the body, mind, and environment to maintain overall health. It includes two main schools of thought: Atreya Sampradaya, focusing on internal medicine using herbal remedies, dietary practices, and therapies like Panchakarma for disease prevention, and Dhanvantari Sampradaya, which centers on surgery and includes advanced techniques like bloodletting (Siravyadha). Shalya Chikitsa or surgery is also one of eight branches of Ayurveda; it applies different procedures like Siravyadha to balance the doshas to treat different maladies. There is Siravyadha: A therapeutic technique of bloodletting that highlights its efficacy to manage conditions at times when usual treatments are inadequate, and so it provides drug-free treatment options. Recent researches have started to work for the improvement by giving anatomical details to reinstate this modern Ayurvedic treatment. **Need Of Study**-This study was conducted to correlate the ancient Ayurvedic concept of Siravyadha with modern anatomical knowledge, specifically in the context of Yakruddalyudar as described by Maharshi Sushrut. This study aims to identify the exact anatomical structures and their corelation with the Siravyadha points mentioned in ancient texts. **Aim and Objectives**-To determine the Exact Sira and Siravyadha sthan in Yakruddalyudar and its clinical significance. **Material and Method**- The findings aim to enhance the understanding of the relationship between Yakruddalyudar and Siravyadha, providing insights that could inform treatment approaches in Ayurvedic medicine. This research highlights the importance of Sira in managing Yakruddalyudar and suggests potential avenues for further investigation into their anatomical significance. **Review of Literature**-Ayurved and Modern **Observation and Discussion-** The dissection study of human cadavers, when viewed through the lens of both Ayurvedic and modern anatomical perspectives, highlights the valuable insights each discipline offers into human vascular anatomy. Ayurveda, with its detailed knowledge of venous points for therapeutic practices like bloodletting, aligns in several ways with modern anatomical understanding of veins, arteries, and vascular structures. The cadaver dissection confirmed the positions of key vein such as the median cubital vein , which is crucial for medical interventions like venipuncture and intravenous therapy. The study also emphasizes the importance of anatomical variations and how traditional Ayurvedic knowledge can complement modern medicine, offering a more holistic approach to understanding the body's vascular system. Integrating these perspectives could lead to improved patient care and a deeper understanding of the intricate connections between body systems in both modern and ancient medical practices. **Conclusion**- By integrating Ayurvedic concepts of Sira with modern anatomical knowledge, the research highlights their complementary relationship, particularly concerning sira of upper arm and its function. Overall, the study aims to enhance understanding Eaxct Sira and Siravyadha Sthana and its importance in treatment of Yakruddalyudar by bridging traditional and contemporary medical perspectives.

KEYWORDS: Sira, Yakruddalyudar, Siravyadha sthana, Medial Cubital Vein, Hepatomegaly.

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INTRODUCTION

Ayurveda, the ancient science of life, offers a holistic approach to achieving a balanced and healthy life. This approach is centered around the harmonious interaction between the body, mind and environment, which is crucial for maintaining overall well-being. The foundational principles of Ayurveda are rooted in two main schools of thought:

1. Atreya Sampradaya (School of Physicians)

This school focuses on the integration of herbal remedies, dietary guidelines, and holistic therapies to diagnose and treat various ailments. It emphasizes the extensive use of medicinal plants and formulations designed to balance the body's doshas—Vata, Pitta, and Kapha. Dietary practices are prescribed to align with an individual's unique constitution (Prakriti) and the specific nature of the disease, ensuring a personalized approach to health. Holistic therapies such as Panchakarma (detoxification procedures), meditation, and lifestyle adjustments are incorporated to enhance overall well-being, promote health, and prevent disease.

2. Dhanvantari Sampradaya (School of Surgeons)

This school places significant emphasis on surgery as a vital method for treating physical ailments and injuries. It incorporates innovative techniques such as Chedana (excision), Bhedana (incision), and Lekhana (scraping), which were advanced for their time. One prominent practice in Shalya Chikitsa is Siravyadha, or bloodletting, which involves the controlled withdrawal of blood from specific veins (Sira) to balance the doshas, particularly Rakta (blood), and treat certain conditions. This technique is believed to alleviate symptoms, correct imbalances, and prevent disease progression. Ayurveda is traditionally divided into eight branches, with Shalya Chikitsa being central to treating injuries and diseases requiring surgical intervention. The other branches include Kaya Chikitsa (general medicine), Shalakya Tantra (treatment of diseases above the neck), Kaumarabhritya (pediatrics), Agada Tantra (toxicology), Bhuta Vidya (psychiatry), Rasayana (rejuvenation), and Vajikarana (aphrodisiac therapy). Each branch addresses specific aspects of health, contributing to holistic well-being and disease management.

sirāvyadha cikitsārdhe śalyatantre prakīrtitaḥ |
yathā prāṇihitaḥ samyag-bastiḥ kāyacikitsite ||

(Su.Sha 8/23)

Maharshi Sushrut's development of Siravyadha as a specialized technique for Rakta dosha nirharan underscores its therapeutic significance.

The advantages of Siravyadha are well-articulated, emphasizing its ability to not only address symptoms but also the underlying causes of diseases, thereby reducing the treatment duration. The contrast with conventional treatments is particularly notable, as Siravyadha offers a drugless alternative that avoids the side effects associated with long-term medication. This procedure's immediate efficacy in alleviating conditions like redness, pain, and Rakta dosha further solidifies its role as a vital therapeutic approach in Ayurveda.

snehādibhiḥ kriyāyogair na tathā lepanair api |
yānty āśu vyādhayaḥ śāntiṃ yathā samyak sirāvyadhāt ||

(Su.Sha 8/22)

Maharshi Sushrut emphasized that in cases where diseases do not respond promptly to traditional treatments like Snehana (oleation therapy) and Lepanadi (application of medicinal pastes), which are part of the Poorva Karma (preparatory procedures) and Pradhan Karma (main procedures), Siravyadha serves as an emergency intervention.

This bloodletting technique is employed to achieve more effective and quicker results, especially when conventional methods fail to provide the desired relief.

athātaḥ sirāvyadhavidhiśārīraṃ vyākhyāsyāmaḥ |
viśeṣatas tu vāmabāhau kurpara-sandher abhyantarato bāhumadhye
plīhni kaniṣṭhikānāmikayor madhye vā |
evaṃ dakṣiṇabāhau yakṛdālye kaphodare caitām eva ca
kāsaśvāsayor apy ādiśanti ||

(Su.Sha 8/16)

yakṛti plīhavatkarma dakṣiṇe tu bhuje sirām ||

(As.Hr.Chi.15/98)

viśeṣatas tu vāmabhāgābhyantarato bāhumadhye plīhodare |
evam eva dakṣiṇe bāhau yakṛdākhye ||

(As.Sa.Su.36/9)

By focusing on the procedure described in Sushrut Samhita Sharirsthana, the importance of identifying the precise anatomical sites for Siravyadha was emphasized, such as the right elbow joint and the area between the little finger and ring finger

.

This area of study was an attempt to highlights a critical gap in classical Ayurvedic texts, which often lack detailed descriptions of the specific anatomical structures or veins to be punctured during Siravyadha. By conducting a dissection-based study, it was aimed to determine the exact Sira (vein) that should be targeted for Yakruddalyudar, a vital step toward ensuring the procedure's safety, simplicity, and cost-effectiveness for patients.

This work has the potential to revitalize the practice of Siravyadha, which has seen a decline and is now limited to certain conditions. By providing a detailed anatomical perspective, your study could encourage a broader application of Siravyadha among Ayurvedic practitioners, thereby contributing to the enrichment and preservation of this ancient therapeutic practice.

AIM

To determine the Exact Sira and Siravyadha sthan in Yakruddalyudar and its clinical significance.

OBJECTIVES

Conceptual study of Sira, Siravyadha and Yakruddalyudar in ayurveda and modern perspective.
Try to study Siravyadha sthana and its exact position and related structure in Yakruddalyudar mentioned in various Ayurvedic text as well as modern medical science.
Try to determine the importance of Siravyadha in the management of Yakruddalyudar and its preventive measure in the point of view of rachna sharir.

MATERIAL AND METHOD

These elements outlined the key sources and methods for research on Siravyadha:

1. Sushrut Samhita and Its Related Commentaries: Original texts of Sushrut Samhita along with various commentaries to understand the classical descriptions and guidelines related to Siravyadha were reviewed and studied.
2. Review of Literature from Various Ayurvedic and Modern Texts: Both Ayurvedic texts(Sushrut Samhita, Astanga samgraha, Astanga Hridaya etc.) and modern medical literature was gathered to comprehensive insights on the subject, bridging traditional knowledge with contemporary understanding.
3. Previous Research Papers, Journals, Internet, and Other Published Documents: Existing research, scholarly articles, and other published materials, including online resources, to build upon the current body of knowledge and identify gaps in the literature were studied.
4. Human Cadaveric Dissection: Dissections on human cadaver was conducted which was a crucial part of methodology, allowing directly to study the anatomical structures related to Siravyadha and the precise sites for the procedure were confirmed.

DISCUSSION

AYURVEDIC PERSPECTIVE ON YAKRUDDALYUDAR

In Ayurveda, Yakruddalyudar is described as a pathological state marked by yakrut vriddhi (hepatomegaly), impaired hepatic function, accumulation of āma, and aggravation of pitta and rakta doṣha. Since the liver (yakrut) and spleen (pliha) are considered the primary sthana of raktavaha srotas, any derangement within them directly manifests as rakta dushti. Hence, Siravyadha assumes central importance in the management of hepatic and splenic disorders. By letting pitta- and rakta dushit blood, it alleviates vascular congestion, balances dosha, and offers symptomatic relief, especially when applied during the early stages of disease progression.

dhātūnāṃ pūraṇaṃ varṇa-sparśajñānam asaṃśayam |
svāḥ sirārū saṃcarad raktaṃ kuryāc cānyān guṇān api ||
(yadā tv akupitaṃ raktaṃ sevate svavahāḥ sirāḥ |
tadā samyak prajānāti sparśanānāṃ śubhāśubham ||
varṇaprasādanaṃ sthairyaṃ dhātūnāṃ puṣṭim eva ca |
karoty anyān guṇāṃś cāpi raktam ātmāsirāś caran ||)
yadā tu kupitaṃ raktaṃ sevate svavahāḥ sirāḥ |
tadāsya vividhā rogā jāyante raktasaṃbhavāḥ |

(Su.Sha.7/16/17)

Systemic Effect: Siravyadha is not just local;It influences distant organs (liver,spleen)by modulating srotas.
Liver/Spleen Disorder: Bloodletting at specific siras near Marmas like (median cubital vein) helps balance Kapha and Rakta related to liver/spleen pathologies.

In Yakruddalyudar Siravyadha is done is right sided 'Kurpara Sandhi Sthita, it is right median cubital vein, which is situated above Kurpara Marma. It is a type of Sandhi Marma controlling Raktavaha Srotas, so that it controls functions of liver and spleen.

ANATOMICAL (RACHANA SHARIR) RELEVANCE

From an anatomical standpoint, superficial veins of the upper limb are crucial for venous return and also serve as preferred sites of clinical interventions. Ayurveda specifically recommend the dakshina kurpara sandhi sthita sira (right elbow joint vein) for bloodletting in Yakruddalyudar. This site anatomically corresponds to the median cubital vein located in the cubital fossa—a superficial, wide, and relatively fixed vessel. Its distance from major arteries and nerves provides safety during venesection, making it an ideal choice in both Ayurveda and contemporary venipuncture practice.

Siras and Marmas Interconnection: Marmas are junction of Mamsa, Sira ,Snayu and Asthi and Sandhi;Siras are integral to Marmas,Making vein selection crucial.

Kurpar Marma: Located near the elbow;the median cubital vein is a key target for siravyadha,linked to liver /spleen function via Raktavaha Srotas.

CLASSICAL CORRELATION WITH MODERN ANATOMY

Descriptions of Kurpara Sandhi Sthita Sira in Ayurveda closely match what modern anatomy calls the median cubital vein, and this has been confirmed through dissection studies. This vein is easy to feel under the skin, has a larger size, and stays steady during puncture. Because of these features, procedures like bloodletting or venesection become simpler and safer. This clear similarity shows how accurate Acharya Susrut's knowledge of veins was in his explanation of Siravyadha Vidhi (bloodletting procedure).

THERAPEUTIC SIGNIFICANCE IN YAKRUDDALYUDAR

Sushruta advised Siravyadha at the right kurpara sandhi sthita sira in liver disorders. This shows his deep understanding of how diseases affect the body and how treatment should be directed. The main idea is that removing impure or vitiated blood helps reduce liver congestion and improves function.In modern medicine, a similar method called phlebotomy is used for conditions like hemochromatosis, polycythemia vera, and some cases of portal hypertension, where blood removal lowers excess pressure and eases strain on the liver.This shows that Sushruta's method of Siravyadha not only anticipated but also closely matches modern medical practices.

COMPARATIVE VENOUS CONSIDERATIONS

Ayurveda and modern medicine both identify the median cubital vein as the most suitable for venesection because it is:

- Superficial and easily visualized
- Wide-lumened with minimal risk of "rolling"
- Safer than the basilic vein due to distance from neurovascular structures
- Less painful for the patient
- Median cubital veins connect the cephalic and basalic veins at the right elbow joint. It receives many tributaries from the forearm's front and releases the median vein, which pierces the antero-cubital fossa's facial roof and connects to the brachial artery's venae commitants. Therefore, the median cubital vein of the right elbow may be the vein advised for Siravedha.

In the context of the Sushrut Samhita Sharirsthana Siravyadhavidhi Sharir, this phrase is commentary by Acharya Dalhan. Practical Application –

1.Identify the nearest accessible point to the pathology.
2.Perform the treatment (Siravyadha) at the site most proximate to the localized vitiated Dosha.

So there is no other superficial vein for vyadha near to the pathological organ which is liver(right side) so the site which is proximate and most superficial for vyadha is right medial cubital vein in cubital fossa. This means as per nearness or in close proximity. It refers to choosing a site for siravyadha that is closest to the site of affected organ that is liver (right side) in yakruddalyudar. This validates Sushruta's meticulous observation of venous anatomy.

Moreover, understanding Vedhya (pierceable) and Avedhya (non-pierceable) veins is essential to minimize complications. Dissection-based anatomical education enhances confidence and outcomes in clinical application by equipping practitioners with the ability to localize and select optimal sites for venesection.

(Sushruta Samhita with Nibandha Samgraha commentary by Dalhanacharya. Panda I, Dev S, Singh S, Shukla SG. Anatomico physiological aspects of Siravyadha W.S.R to neuromuscular disorders.)

CLINICAL EVIDENCE AND MODERN CORRELATION

Emerging clinical research supports Siravyadha's hepatoprotective, hypolipidemic, and anti-inflammatory effects, especially in conditions analogous to non-alcoholic fatty liver disease (NAFLD), which closely aligns with the Ayurvedic Yakrutodar. Controlled trials have shown that Siravyadha, when combined with dietary and lifestyle modifications, leads to significant improvements in liver function (reductions in SGOT, SGPT, triglycerides, and cholesterol) compared to control groups. These findings indicate that Siravyadha effectively reduces hepatic congestion, alleviates portal hypertension, and improves microcirculation, thereby supporting hepatocellular health.

(Anita, Kumar U. A Comprehensive Review of Avedhya Sira and Modern Correlations.)

A 2024 clinical trial titled "The Impact of Sira Vedha (Phlebotomy) at the Right Elbow Joint in NAFLD Patients" demonstrated significant improvement in liver function parameters (SGOT, SGPT), cholesterol, HDL, and triglyceride levels in the intervention group (Siravyadha plus lifestyle changes) compared to the control group (lifestyle alone). The results showed that Siravyadha had a statistically significant hepato-protective and hypolipidemic effect.

(Prasad S, Sharma R. The Impact of Sira Vedha (Phlebotomy) at the Right Elbow Joint in NAFLD Patients: A Randomized Controlled Trial.)

A 2021 pilot study found improvement in liver enzymes and lipid profiles in NAFLD patients who received phlebotomy (Siravyadha), though it acknowledged the need for larger sample sizes for more definitive conclusions.

(Patil C, Biradar S. Pilot Study to Test Efficacy of Sira Vedha in Non-Alcoholic Fatty Liver Disease (NAFLD).

Another study published in the International Ayurvedic Medical Journal (2025) evaluated the efficacy of Agnikarma and Siravyadha for Yakriddalyudara (fatty liver disease). Siravyadha produced highly significant relief in clinical symptoms (such as fatigue, indigestion, abdominal discomfort) as well as objective improvements on ultrasonography, with a statistically significant effect ($P<0.001$).

(Joshi VC, Dubey RN. Nikarma and Siravyadha in yakriddalyudara vis-vis fatty liver disease.Singh R, Mishra N. Successful management of non-alcoholic fatty liver disease with Ayurveda interventions.)

CONCLUSION

This dissection-based study of the superficial veins (Sira) as described in the management of Yakruddalyudar with reference to Siravyadha demonstrates a strong correlation between Ayurvedic concepts and modern anatomical knowledge. Ayurveda identifies Yakruddalyudar as a disorder characterized by impaired liver function, hepatomegaly, toxin accumulation, and vitiation of Pitta and Rakta. Therapeutic bloodletting (Siravyadha) remains a pivotal intervention, particularly for conditions rooted in Raktavaha Srotas dysfunction.

The practical exploration and mapping of superficial veins—including the cephalic, basilic, and median cubital veins—confirmed that the anatomical sites traditionally chosen for Siravyadha, such as the Dakshin Kurpara Sandhi (right elbow/cubital fossa), align closely with accessible and clinically significant venous pathways. Careful anatomical dissection clarified the relationship of these veins with adjacent nerves and arteries, reinforcing both the efficacy and safety considerations prioritized in both Ayurvedic and modern procedures.

Modern clinical investigations now support the utility of Siravyadha in managing liver disorders analogous to NAFLD, revealing benefits such as improved liver enzyme profiles, reduced lipid levels, and symptom relief when integrated with dietary and lifestyle interventions. The study's findings thus affirm that anatomical precision in venous localization, as acquired through cadaveric dissection, is essential for maximizing therapeutic outcomes and minimizing procedural risk.

The observed veins—the cephalic, basilic, and median cubital veins—form an integral part of the venous drainage around the cubital fossa, a region traditionally highlighted in Ayurvedic texts as ideal for therapeutic bloodletting procedures. Amongst which median cubital vein is preferred vein for Siravyadha at cubital site.

The variability noted in the superficial veins, their anatomical course, and their proximity to important nerves such as the lateral cutaneous nerve of the forearm, radial nerve, medial cutaneous nerve, and ulnar nerve requires precise anatomical knowledge to ensure safety and efficacy during Siravyadha. The median cubital vein's consistent presence, anatomical relations, and fixation by the bicipital aponeurosis and there is no other superficial vein near to pathological organ liver(right side) for siravyadha. So the preffered superficial vein is right medial cubital vein .underscore its practical advantage as the preferred venous site for interventions, explaining its frequent recommendation as the site for venesection in both Ayurveda and modern clinical practice. The findings regarding the veins' pathways—from their origin at the dorsal venous network through their course along borders of the forearm and arm, to their drainage into deeper veins—mirror the classical anatomical descriptions and confirm the rationale behind the recommended site median cubital vein for Siravyadha. This anatomical validation provides a strong scientific foundation to the therapeutic application of Siravyadha, enhancing the safety profile by helping avoid injury to arteries and nerves.
In Yakruddalyudar Siravyadha is done is right sided 'Kurpara Sandhi Sthita, it is right median cubital vein, which is situated above Kurpara Marma. It is a type of Sandhi Marma controlling Raktavaha Srotas, so that it controls functions of liver and spleen.
Due to contamination of the liver from left to right , Yakruddalyudar occurs . In this also , Rakta and Kapha dosh becomes strongly aggrevated and continuously enlarge liver . This is called Yakruddalyudar. Through Siravyadha, contaminated Rakta and Kapha dosh are expelled from the body , thus calming Yakruddalyudar. For the proper removal of contaminated impurities , a sensitive and more stable extremity has been selected .The liver is a right sided and also viscus containing blood . This is likely why the extremities of the right arm have been selected for Yakruddalyudar .

From the perspective of modern medical science ,Yakruddalyudar can be compared with hepatomegaly . The size of the liver increases in hepatomegaly . The length from superior to inferior border becomes more than 13 cm . There are many reasons for hepatomegaly such as – infective , infiltrative, neoplastic, metabolic ,vascular, excessive storage , congestion and obstruction etc. The mechanism of hepatomegaly is 1.Increases vascular engorgement 2.Inflammation 3.Deposition and expansion due to non liver cells/materials.

Siravyadha relieves congestion , releases epinephrine and nor-epinephrine which mobalize deposited fatty acid of the liver . Hepatocellular enzymatic activity improves. New RBCs are formed , which use ferritin . Siravyadha eliminates infectious , metabolic , vascular , excessive storage , congestion , etc . factors from the body , which helps in calming down hepatomegaly.
In conclusion, the integration of traditional Ayurvedic wisdom and modern anatomical practice—validated by cadaveric dissection—highlights the enduring relevance and scientific validity of Siravyadha in the management of Yakruddalyudar. This approach not only upholds the curative and preventive strengths described in classical texts but also provides a robust foundation for safe, evidence-based clinical practice in contemporary hepatology.

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