

## IMPORTANCE OF BLOOD LETTING WSR TO SIRAVEDHA IN SIRAGRANTHI (ie.VARICOSE VEINS)

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Article Received on  
15 June 2015,

Revised on 07 July 2015,  
Accepted on 29 July 2015

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### ABSTRACT

Due to fast life style people get affected because of various types of jobs that affect the physical, mental state of health and socially also. Owing to their constant erect or standing posture they suffer from dilatation of veins. Varicose veins of lower limbs are the penalty the man due to its erect posture; functionally veins have to drain against gravity. The varicose vein is very common disorder in the society, in UK it is estimated to affect 20-25% women and 10-15% men<sup>1</sup> (Br J Surg. 1994;81:167-73). In *Ayurvedic* literature this particular disease has been described as "*Siragranthi*" (ie.Varicose vein). *Siravedha* (bloodletting) is most important parasurgical method and considered as half of treatment among surgical procedures.

**KEYWORDS:** Varicose veins, *Siragranthi*, blood letting, venepuncture.

### INTRODUCTION

Ayurveda, the science of life has given importance to the prevention of diseases rather than cure i.e. "*Prevention is better than Cure*". Natural life style has been explained in the *Ayurvedic Samhitas* as "*Dincharya*"(daily regimen) and "*Ritucharya*"(seasonal regimen). In this fast life style people get affected due to their various types of jobs that affect the physical, mental state of health and socially also. Owing to their constant erect or standing posture they suffer from dilatation of veins. This finally causes multiple diseases according to involvement of fine channels ie."*Srotovaigunya*".

**Siragranthi (Varicose vein)**

When a vein becomes dilated, elongated and tortuous due to retrograde flow of blood, the affected vein called as "**varicose vein**". Varicose veins of the lower limbs are the penalty the man to pay for its erect posture; functionally veins have to drain against gravity. The superficial veins have loose fatty tissues to support them and thus suffer from varicosity. Varicose veins leads to complications such as venous ulcer, thrombophlebitis, embolism or thrombosis of veins. The varicose vein is very common disorder in the society, in UK it is estimated to affect 20- 25% women and 10-15% men<sup>1</sup> (Br J Surg. 1994; 81:167–73). In *Ayurvedic* literature this particular disease has been described as "*Siragranthi*" (ie. Varicose vein)<sup>2</sup>. *Sushruta* the "father of surgery" was equipped with both surgical and parasurgical techniques; which could be termed as four fold approach". The four procedures are "*Shastra, Kshara, Agni and Raktamokshana*" *karmas*. This means the surgical procedures with sharp instruments, the use of alkaline material for cauterization; the use of thermo-cautery to burn away unwanted tissue and lastly the use of various techniques to let out the impure blood from body.

**MATERIALS AND METHODS**

Siravedha (bloodletting) is most important parasurgical method and considered as half of treatment among surgical procedures <sup>3</sup>. *Sushruta's* school of thought considers the *rakta* (blood) as *dosha* because the blood plays main role in the pathogenesis of many disorders <sup>4</sup>. *siravedha* is a purificatory procedure for *rakta* as the *virechana* (Purgation) for *Pitta* and *Vamana* (emesis) for *Kapha*.

**Casuative factors of *Siragranthi*<sup>[5]</sup> (Varicose veins)**

- a. Weak person who works hard or for a longer period for longer distance.
- b. Weak person who walks for a longer time.
- c. If he dips his leg in water (especially in cold water).
- d. A person who does heavy exercise.

Due to various *vata* vitiating factors *vata* gets vitiated in the body and this vitiated *vata dosha* acquires *sthansanshraya* (ie.localization) in different parts of the body. *Acharya Sushruta* described that vitiated *vata dosha* gets accumulated either in one part or one *dhatu* by producing symptoms described above like *Shotha* (inflammation), *shoola* (painful) etc.<sup>[6]</sup> If the proper management of vitiated *vata dosha* is not done at the same time then this vitiated

*vata dosha* spreads to the other body parts and if still neglected produces the various diseases like *siragranthi* (ie.varicose veins).<sup>[7]</sup>

### **Pathogenesis (ie.*Samprapti*) of varicose veins<sup>[8a,b]</sup>**

1. *Upashaya* - On rest.
2. *Anupashaya* – *chankramana* (excessive walking),Physical strain etc.

*Vata* vitiates *rakta dhatu* due to this; *Sira* undergoes *sankochan*, *sampidana* and *vishoshana* causing *Siragranthi* (ie.varicose veins).If vitiates at the site of vein leads to signs and symptoms of varicose veins. The change in the shape and size causes veins to become *sankuchit* i.e. tortousity of veins. Also due to *Ruksha guna* (dryness) veins becomes rough and hard (ie.*visohoshana*) and finally veins looks like a swelling that is painless and non pulsatile.

### **Clinical features of *Siragranthi*<sup>[9]</sup>**

- a. *Sira Sankocha* (tortous veins)
- b. *Sira Vakrata* (irregular surface of veins)
- c. *Sira Utsedha* (inflammation of veins)
- d. *Vishoshana* (roughness and hardness of veins)

### **Prognosis of *Siragranthi***

While describing the *siragranthi* Acharya sushruta has explained the severity of disease i.e. as per stage which type of treatment should be followed. In relation to *siragranthi* it is said that if the *granthi* which is painful and movable is difficult to treat. If it is not painful but large, immobile and situated at *marmasthana* (ie. at vital points) is also difficult to treat (ie.*kruchyasadhya*).<sup>[10]</sup> If it is large and we operate it will bleed profusely which will again cause life threatening condition.

### **Treatment of varicose veins in Ayurveda<sup>[11]</sup>**

1. *Taila pana* especially *sahacharadi taila* (Oleation therapy).
2. *Upanaha* (Poultice).
3. *Basti karma*(Enema).
4. *Siravyadha* (Blood letting)

**Siravyadha (Blood letting)**

According to *Sushruta*, blood letting (ie. *siravyadha*) is a prime or half the treatment of diseases in *shalyatantra*. So it is clear that patients having varicose veins can be treated by *siravedha* and also can be prevented from further complications. As *Sira granthi* is the disease due to vitiated *vata* mainly and *rakta dhatu* also, when blood letting performed the pathogenesis of *siragranthi* will break.<sup>[12a,b]</sup>

**Poorvakarma of blood letting**

Before performing *siravedha*, certain prerequisites have to fulfill the poorvakarma like preparation of patient, preparation of equipments, collection of drugs and dressing materials etc.

**Pradhankarma of blood letting**

Once all these pre-requisites are completed, the procedure can be proceeded ie. *Siravyadha*.<sup>[13]</sup>

The important steps for *Siravedha* are-

- A. Proper positioning of the patient either sitting up or standing. An appropriate position aids in the adequate flow of blood.
- B. Selection of *Sira* (ie. vein) and making it adequately prominent.
  - Properly visualized.
  - Properly fixed.
  - It should be engorged and prominent.

Selection of sites of *siravyadha* and amount of blood to be let out. All these conditions are achieved by various means eg. (i) Tying above the site with any *vastra* (cloth), *valkala* (bark), *lata* etc. (ii) Pressing with fingers by an assistant.

*Siravedha* was actually done using various instruments or *shastra* (ie. sharp instruments) in ancient period. The selection of sharp instruments depends on the site of blood letting.<sup>[14]</sup> Now-a-days a simple needle, 12 No blade (curved), a scalp vein set or a trochar cannula serve the purpose.

Appropriate quantity (maximum) of blood that is to be let out from a strong individual is one *prastha* (ie. 640ml). According to *Dalhana* the blood can be let out in order of approximately one *prastha* (ie. 640ml), half *prastha* (ie. 320ml) and one *kudava* (ie. 160ml) in case of *uttama*,

*madhyam and hina matra*. Appearances of features of proper blood letting are important like decrease in the pain, happiness and blood stops flowing of its own.<sup>[15a,b]</sup>

### Sign and Symptoms of proper Siravedha

When appropriate amount of blood has been let out and features of proper blood letting are obtained that indicates the end of the procedure.

A. *Vedana santi* (pain decreases)

B. *Laghuta* (sense of lightness),

C. *Vyadhirvega prasamana* (remission of signs and symptoms of disease)

D. *Mana prasadana* (happiness)<sup>[16]</sup>

It has been stated that all the *dushta rakta* (ie.vitiated blood) should not be removed completely. Some of it can be left behind to avoid an accidental excessive blood loss. The left over vitiated blood can be cleaned up by other forms of *samshamana* (ie.conservative) treatment modality.*Siravedha* usually leads to the flowing out of vitiated blood like jet; this has been illustrated quite clearly by *Sushruta*.

### Postoperative care after Siravedha

Appearance of features of proper bloodletting indicates the end of procedure and to perform postoperative care like application of haemostatic and antiseptic powders, tight bandage etc. at the site of bloodletting.

## DISCUSSION

The varicose vein is very common disorder in the society, estimated to affecting men and women both. The most common cause is incompetent valves in the vein, while increasing age, obesity, family history etc are risk factors .The treatment of varicose veins presents challenging to the patient as well as the attending physician/surgeons also. Bloodletting is a physiological stress, can also activate local production of HSP-70.The increase in HSP-70 has been proven to promote the survival rate of cell. Bloodletting also decreases the IL-1 production and is effective in disorders of immune function. It draws the impure blood in the consideration of blood which is contaminated and loaded with excretory products and other debris. The specific veins described for puncturing in different parts of body have special affinity to decongest a distant organ or part and stimulate it to reorganize.

Ayurveda is known to possess the rich collection of medical and parasurgical techniques. *Siravedha* was found virtuous effort proper assessment of the effect of *siravedha* was made and the necessities of dietary regimes were advised to the patients to follow. After the course of treatment, they were requested to continue bandaging, for proper support of their varicose veins and exercise to improve action of the calf pump mechanism. It seems once the symptomatic relief was obtained, they don't care much about the basic problem, i.e. "*Siragrandhi*". Reduced hyper-pigmentation, pain and swelling were noticed after blood letting.

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