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CASE REPORT May-June 2021

# A case study to evaluate Jalaukavacharana in the management of Siraja Granthi with special reference to Varicocele

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# ABSTRACT

Varicocele is state of varicosity of testicular veins. It is the more frequent and more discomforting condition seen in mostly in teens or in early adult life of males. Occurs in approximately 15-20% of all healthy fertile males and 40% of infertile males. Varicocele can have destructive effects on mobility, concentration and morphology of sperm and can reduce its DNA integrity and other functions. The treatment protocol in varicocele mainly includes laparoscopic ligation of the testicular veins and embolism of testicular vein under radiological control. The major drawback is surgical intervention. It is done only in advanced stage or when there is severe pain or remarkable oligospermia. There are chances of recurrence. There is no direct reference of varicocele as a separate disease in the classics. But Siraja Garnthi is quoted in all Brihatrayees which has similar etiopathogenesis and clinical presentations. The line of treatment mentioned is Siravyadha. Even Purvarupa of Vruddi mentioned by Acharya Sushruta in Vruddinidhna in Nidanastana, can be considered as varicocele. By considering the site and presentation, varicocele can be co-related with Siraja Garnthi of Vrushana Kosha and the treatment protocol to be followed is Siravyadha. Since the pampiniform plexus and testicular veins are of smaller diameter, Jalakavacharana can be considered. Hence, Jalaukavacharana is carried out to see the effectiveness in Varicocele.

Key words: Varicocele, Jalaukavacharana, Siraja granthi, Pampiniform plexus, Case study

## **INTRODUCTION**

Varicocele is state of varicosity of testicular veins. It is the more frequent and more discomforting condition seen in mostly in teens or in early adult life of males. Occurs in approximately 15-20% of all healthy fertile

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males and 40% of infertile males. Varicocele can have destructive effects on mobility, concentration and morphology of sperm and can reduce its DNA integrity and other functions. [6,7,8,9]

Varicocele can be considered as Siraja Granthi of Vrushana Kosha, but there is no direct reference of this condition available in Ayurveda. By considering the site and presentation, varicocele can be Co related with Siraja Granthi of Vrushana Kosha [1,2,3,4,5]

Since the pampiniform plexus and testicular veins are of smaller diameter, a modified way or one among Rakta Mokshana i.e., Jalaukavacharana can be considered

It is minimally invasive, cost effective and a procedure with negligible complications.

## **CASE STUDY**

Name - Anonymous

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Age - 35yrs

Sex - Male

Place - Bengaluru

**Occupation** - Cook

Marital status - married with two offspring

Date of first sitting - 26.3.2019

**Main complaint** - c/o pain in the scrotum and left inguinal region with on and off swelling in scrotum since one month.

Past history - not a known case of diabetes mellitus/hypertension/infectious disease

**Surgical history** - had past history of inguinal hernia and was operated for the same 3yrs back.

**Family history** - no history of similar complaint in the family

**Personal history -** Diet - Mixed; appetite - normal; sleep - adequate; bowel - regular, no constipation; bladder - regular, 4-5 times/day; habit - no addictions

#### **Physical Examination**

**Conscious - Intact** 

Nourishment - Moderate

Built - Moderate

Gait - Normal

Pulse rate - 78 bpm

Respiratory rate - 20/min

There was no sign of pallor, icterus, clubbing, cyanosis, lymphadenopathy

#### **Systemic Examination**

Respiratory System - normal breath sounds heard, no added sounds. Bilateral air entry - normal

Cardiovascular System - S1S2 heard, no added sounds

Central Nervous System - Higher mental functions intact

Consciousness - intact

Orientation to time place and person - intact

Cranial Nr. System - within normal limits

Gastrointestinal Tract - within normal limits

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#### Local examination

Inspection - swelling +, left sided, no change of colour

Palpation - temp - slightly raised, Tenderness - +, Cough impulse – absent, Feeling of bag of worms – absent, Dilatation of veins on Valsalva manuver – absent.

#### Investigation

CBC - within normal limits

HIV 1&2 - Negative

RBS - 80mg/dl

HbsAg - Non reactive

USG Scrotum - done on 18.03.2019 - Left sided Grade 2 Varicocele

#### **MATERIALS AND METHODS**

- Nirvisha Jalauka
- Haridra/Yastimadhuchurna
- Bandage
- Gauze
- Cotton

#### Methodology

- Patient included for the study was explained about the procedure and informed written consent was taken.
- Patient was subjected to Jalaukavacharana(leeching) over the scrotal region adjacent to the varicocele swelling on the 1<sup>st</sup> day of treatment, and was continued for 3 more sittings of Jalukavacharana with gap of 7 days between each sitting. Jalauka was placed for 45mins or till it got detached by itself.
- Paschat Karma- for Jaluka- Haridra was applied and Vamana for Jaluka was carried out till it became active when placed in Haridra Jala.

To patient - the area of bite was applied with *Haridra* and pressure was applied for 15 mins to attain haemostasis, following that scrotal bandage was carried out and pt. was made to lay down with raised

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leg for 30mins. Following which pt. was allowed to go home.

#### RESULTS

- By 2<sup>nd</sup> sitting of Jalukavacharana, there was be marked reduction in pain
- Marked reduction in swelling.

At the end of 4 sittings, patient had no pain or swelling over the scrotal region.

#### DISCUSSION

Jalaukavacharana / Hirudotherapy / Leech therapy is one of the best and most successful instances of the use of invertebrates for therapeutic purposes. The mostly used medicinal leech (Hirudo medicinalis) belongs to phylum Annelida, class Clitellata and subclass Hirudinea. Among Indian leeches, Hirudinaria granulose has got medicinal properties. It is a fresh water leech and is found abundantly in the states of Tamil Nadu, Kerala, Madhya Pradesh, Uttar Pradesh and Punjab. Leeches are annelids or segmented worms and although closely related to earthworms, are anatomically and behaviourally more specialized. Leeches have three jaws and make "Y" shaped incision.

When leeches begin feeding, they inject salivary components into the blood stream. The major ones are hirudin- which is thrombin inhibitor. It inhibits both platelet aggregation and coagulation. Cascade this results in marked relief of venous congestion. A 'spreading substance', Hyaluronidase, is also found in leech saliva, which modifies the permeability of connective tissue through the hydrolysis of endoglucoronidic linkages of hyaluronic acid, thus helps in the absorption of saliva. In addition, newer studies on leech saliva have revealed the presence of histamine, serotonin and also certain steroid hormones including cortisol, progesterone, testosterone, oestradiol, and dehydroepiandrosterone. Certain kininases have also been isolated from the leech saliva, which are possibly responsible for the analgesic action. Anti- nociceptive effect and counter irritation due to the leech's saliva, reduces pain.

#### CONCLUSION

Jalaukavacharana helps is reducing the local inflammation, localized venous congestion and localized ischemia and reduces the need for surgical intervention in the initial stages, gives symptomatic relief and helps in maintaining the condition and prevents from going to further stages. Hence, Jalaukavacharana can be implemented in treating the initial stages of varicocele and the procedure is OPD based, minimally invasive and cost effective.



Fig. 1: Collection and storage of Jaluka



Fig. 2: Activating of Jaluka before procedure



Fig. 3: First sitting of Jalaukavacharana

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Fig. 4: Third sitting of Jalukavacharana



Fig. 5: Applying Haridra to mouth of Jaluka for Vamana



Fig. 6: Blood collected in first sitting of Jalukavacharana

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