



A LITERATURE REVIEW ON THE EFFICACY OF *SIRAVYADHA* IN *KROSTUKASIRSA* W.S.R. TO NON- SPECIFIC KNEE EFFUSION

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Abstract:-

Non-specific knee effusion can be correlated with the entity *Krostukasirsa* to certain extent. *Acharya Sushruta, Acharya Vagbhata, Bhavprakash, Madhavkar, Chakrapani Dutta* has described that vitiation of *Vata* and *Rakta Dosha* is considered to be the main pathogenesis in concern to *Krostukasirsa*.

Acharya Sushruta has described *Aaghat* (trauma), *Amvata, Sandhivata* (non specific arthropathies), *Updansh* (infective arthropathies) as its aetiological factors and *Shoth* (inflammation), *Maharuj, Pida* (pain) as the main clinical features of *Krostukasirsa*.

While describing treatment of *Krostukasirsa*, stress has been given on the pacification of vitiated *Vata* and *Rakta Dosha* through *Vata Sanshmana* (anti-inflammatory measures) and *Siravyadha*. *Acharya Sushruta* has indicated *Siravyadha* to be performed in the leg region four finger above *Gulfa* (ankle) in the management of *Krostukasirsa*, *Khanja, Pangu* and *Vatavedana*.

Keywords: *Krostukasirsa, Siravyadha, Non-specific knee effusion.*

Introduction:-

Non-Specific knee effusion is a disease secondary to degenerative changes /excessive body weight / excessive wear and tear / trivial or evident trauma to the knee joint or other conditions associated with Non-specific knee arthropathies. The condition can be defined as the abnormal accumulation of the fluid in the knee capsule or the adjoining supra-patellar bursa secondary to the irritation/inflammation of sub-acute strength in the joint synovium. This condition could be correlated with the *Janu Sandhi Shleshmadhara Kala Shoth* and found to be associated with the diseases like *Amavatta, Vatrakta, Sandhigata Vata, Krostukasirsa* and other related arthropathies explained in *Ayurveda*. *Krostukasirsa* can be correlated with Non specific knee effusion as described in *Ayurveda*.

Aim and objective:-

- To understand importance of *Siravyadha* in detail by review of *Ayurveda* literature.
- To understand their efficacy of *Siravyadha in Krostukasirsa* wrs Non specific knee effusion by review of *Ayurveda* literature.

Material and method:-

- Review of *Ayurveda* literature including relevant commentaries.
- Other print media, online information, journals, books, magazines etc.

Review of literature:-**Historical review:-**

- *Ayurveda* is a system of health science known since the time immemorial. Curious scholars from different systems of medicine are looking towards *Ayurveda* for the effective management of various life style disorders including this entity in question. The condition of non-specific knee effusion can well be considered comparable to *Krostukasirsa* mentioned under the *Vata Vyadhi*.

Review of Krostukasirsa:-

- **Description of *Krostukasirsa* as per various reference texts (ayu.)**
- **1. *Sushruta Samhita*(1000-1500 B.C.)**
- *Acharya Sushruta* has mentioned the description of *Krostukasirsa* in *Nidanasthana*.
- He mentioned that it is a *Vata Sonita Vyadhi*.
वातशोणितजःशोफोजानुमध्येमहारुजः।
शिरःक्रोष्टुकपूर्वतुस्थूलःक्रोष्टुकमूर्धवत्॥¹ (Su.Ni-1/76)
- In *Chikitsa Sthana Siravyadha* and *Vata Samaka Chikitsa* is the line of treatment mentioned for *Krostukasirsa*.
- *Acharya Dalhana* commentator of *Sushruta Samhita* also mentioned that *Siravyadha* and *Vata Samaka Chikitsa* is the treatment of choice for *Krostukasirsa*.²
- **2. *Astanga Hridaya*(6th century):** there is a description related to *Krostukasirsa* in the *Nidan Sthana* of *Astanga Hridaya*. A swelling in middle of the knee arising from aggravated *Vata* and *Sonita* is highly painful and resembling the head of jackal to be known as *Krostukasirsa*.³
- **3. *Madhava Nidana* (7th century):** in *Vata Vyadhi Nidana*, *Acharya Madhava* describes *Krostukasirsa* as *Vata Vyadhi*, and mentioned that it is due to *Vata Dosa* mixed with *Rakta Dosa*.⁴
- **4. *Chakradatta* (11th century):** *Acharya Chakradatta* describes *Krostukasirsa* in *Vata Vyadhi Chikitsa Prakrana* and mentioned that in *Vishwachi*, *Paddah*, *Padharsh Vatakantak* and *Krostukasirsa*, it is essential to do *Siravyadha* and *Vata Vyadhi Nashaka* treatment.⁵
- **5. *Sharangdhara* (13th century):** *Acharya Sharangdhara* has described *Krostukasirsa* in *Sharangdhara Pratham Khanda*.⁶

- **6. Yogratnakar:** the author of *Yogaratnakara* also described *Krostukasirsa* in *Vata Vyadhi Nidana* and mentioned that it is a *Vata* and *Sonita Vyadhi* in which *Sotha, Maharuja, Sthulta* at knee joint. He also described its treatment in *Vata Vyadhi Chikitsa*.⁷
- **7. Bhavaprakasa (16th century):** Acharya Bhavprakasa described *Krostukasirsa* in *Madhyam Khanda, Adhyaya Vata Vyadhiadhikara*.¹³ He also describes its *Chikitsa* in *Vata Vyadhiadhikara Sloka*.⁸
- **8. Krsnarambhatta (20th century):** author of *Sidhabhesajya Manimala* also described *Krostukasirsa* and its treatment in *Caturtha Guch*.
- In *Ayurveda*, *Janu Sandhi* is a type of *Kore-Sandhi*. It articulates with both femur and tibia. *Krostukasirsa* is the condition mentioned with the feature of inflammation of knee joint.

General Features of 'Krostukasirsa':-

The clinical signs described in *Ayurveda* texts stand the same as mentioned in any modern surgical text book. The contribution of Acharya Sushruta in this aspect is so perfect that it has hardly any room for alteration even today. He has mentioned signs and symptoms as general and specific features.

- ◆ **Sopha on affected knee joints (marked swelling):** generally, knee swelling, whether it is localised or diffused, it will be associated with mild to moderate knee effusion.
- ◆ **Janu Madhya Maharuja (knee joint pain):** knee effusion produces variety of pain. This depends on nature of trauma, and nature of soft tissue involvement, osteoarthritic changes etc.
- ◆ **Sirah-Krostukpurva Tu Sthula Krostukmurdhvata (knee with fluid):** Trivial injury, overuse, repetitive stress of the knee causes irritation of synovial membrane which leads to accumulation of synovial fluid in the synovial cavity of the knee joint.

Sapeksha Nidana (differential diagnosis)

The importance of *Sapeksha Nidana* lies in the establishing the exact identity of the disease. Hence differential diagnosis is inevitable for accurate identity of the disease.

To get the clear idea regarding the disease *Krostukasirsa*, a comparative study of cardinal symptoms of similar diseases entities are given below.

Table 1-SapekshaNidana (differential diagnosis) of Krostukasirsa

Factor	Krostukasirsa	Sandhigata-Vata	Amavata	Vatarakta
Amapradhanya	Absent	Absent	Present	Absent
Jvara	Absent	Absent	Present	Absent
Hrdgaurava	Absent	Absent	Present	Absent
Prone age	–	Old age	Any age	–
Vedana	Tivra	At Prasarana Akunchana Pravriddhi	Vrischik DanshaVataand Sanchari	Mushika Damshavat Vedana
Sotha	Krostruka Sirsavat	Vatapurna Dritisparsha	Sarvanga Sandhigata	Mandal Yukta
Sandhi(affected)	Only Janu	Vatapurna Dritisparsha	Big Sandhi	Small Sandhi
Upasaya	Raktashodhana	Abyanga	Rukshasvedana	Raktasodhna

Sadhya-Asadhyata :-

Krostukasirsa is one of the *Vata-Vyadhi*. Acharya Vagbhatta and Acharya Sushruta have considered *Vata Vyadhi* as *Mahagada*. It is so called due to the fact that the treatment is time consuming and prognosis is uncertain.

Further *Dhatuksaya* is the chief cause of *Vata Vyadhi*. *Dhatuksaya* is difficult to treat as Acharya Vagbhatta has elaborated that since body is accustomed to *mala*, *Dhatuksaya* is more troublesome than *DhatuVrddhi*. *Krostukasirsa* is one of the *Vata Vyadhi*, therefore it is *Kastasadhya* (difficult to treat). Disease situated in *Marma* and *Madhyama Rogamarga* is *Kastasadhya*. *Krostukasirsa* is the disease of *Sandhi* which form *Madhyama Rogamarga*.

Krostukasirsa Chikitsa:-

Krostukasirsa is a *Vatika* disease, mainly occurs due to *Dhatuksaya* or *Avarana*, so general treatment of *Vata Vyadhi* can be adopted. Common treatment like *Snehana*, *Svedana*, *Mrdu Samsodhana*, *Basti* and *Vatahara Aushadha*, *Ahara* and *Vihara* may also be applicable in *Krostukasirsa*. Various Acharyas describe *Krostukasirsa Chikitsa* as under:

According to Acharya Sushruta *Krostukasirsa* is a *Vatika* disorder and in this disease treatment of choice is *Vata Samaka Chikitsa* and *Siravyadha*.

गृध्रसीविश्वाचीक्रोष्टुकशिरः....सिराव्यधं

वातव्याधिचिकित्सितंचावेक्षेत॥⁹ (Su.chi.5/23)

Vrindmadhava (9th century) also describes *Krostukasirsa Chikitsa* in *Vata Vyadhi Chikitsa* and mentioned that in case of *Krostukasirsa* (arthritis or synovitis of the knee) *Guggulu* with the decoction of *Guduchi* and *Triphla* should be taken.¹⁰

According to *Chakradutta* *Krostukasirsa* is a *Vata Vyadhi*. In this disease *Guduchi* and *Triphla* should be used with *Sudha Guggulu* otherwise milk with *Eranda oil* or *Vidhara Churna* should be used for treatment.¹¹ He also mentioned that it is essential to do *Siravyadha* and *Vata Vyadhi* treatment in *Krostukasirsa*.

Yogratnakar describes treatment of *Krostukasirsa* in *Vata Vyadi Chikitsa*. He mentioned that when decoction of *Guduchi* and *Triphla* with *Guggulu* is used for one month then it becomes curable.¹²

According to *Bhavaprakash* *Guduchi* and *Triphla* should be used with *Guggulu* otherwise milk with *Eranda oil* or *Vidhara* should be used.¹³

Review of Siravyadha-

Siravyadha (Venepuncture) of *Raktamokshana* (Bloodletting) is an important *Anushalya Karma* (Para surgical procedure). According to *Sushruta Samhita* and *Ashtanga Sangraha*, *Siravyadha* (Venepuncture) is half the treatment or full treatment in *Shalya Tantra* like *Basti* (Ayurvedic enemas) in *Kayachikitsa* because blood is the seat for all diseases and there is no other *Dushyas* i.e. tissue that get vitiated than blood in patients of such diseases.

सिराव्यधश्चिकित्सार्थं शल्यतन्त्रे प्रकीर्तितः ।
यथा प्रणिहितः सम्यग्बस्तिः कायचिकित्सिते ॥२३॥¹⁴

(Su.Sha.8/23)

Siravyadha is surgical procedure of puncturing the vein for therapeutic purpose and there by accomplishing the *Raktamokshana*. It is indicated in all condition where *Raktmokshana* is indicated. Even then, in certain disease, *Siravyadha* has edge over other methods of *Raktmokshana*. *Raktamokshana* by the method of *Siravyadha* is preferred in physically strong as well as courageous people. Morbidity of *Rakta Dhatu* when generalized is best treated by the *Siravyadha*.

Contraindication of Siravyadha:-

In the following cases, *Siravyadha* is contraindicated in generalized swelling, swelling in debilitated persons caused by *Amla Ahara* and that in those suffering from *Pandu*, *Arshas*, *Udara*, *Shoshi* and *Garbhini* who has *Shwayathu*.

In extremes of age, a person who is *Ruksha*, *Bheeru*, *Ksheena*, *Shranta*, *Krasha*, a person emaciated due to *Madya*, *Adhvaand Stree*, patient who has undergone *PanchaKarma* procedure and a person afflicted with *Kasa*, *Shwasa*, *Jwara*, *Kshata*, *Trushna*, *Akshepaka*, *Pakshaghata* should not undergo *Siravyadha Karma*.

Vyadhana should not be made into those *Siras* which are *Avedhya*, those which are *Vedhya* but invisible. Though visible but cannot be fixed and those *Siras* which doesn't become prominent even after *YantranaKarma*.¹⁵

Indication for Siravyadha:-

Diseases like *Vidradhi* except *Tridoshaja*, *Kushta*, *Ekadoshaja* *Shopha*, *Shleepada*, *Visha*, *Arbuda*, *Visarpa*, *Granthi*, *Stanaroga*, *Krimidanta*, *Dantaveshta*, *Upakusha*, *Sheetada*, *Dantapupputa*, *Kshudraroga* are indicated for *Siravyadha*.

Siravyadha Vidhi:-

The patient, after *Snehana* and *Swedana* should be given *Ahara* contrary to the respective *Dosha*, mainly consists of *Yavagu*, at appropriate time, and should be asked to sit or stand comfortably. Selecting the area, the *Sira* are made prominent with the help of either *Vastra*, *Patta*, *Charma*, *Antharvalkala*, *Lata* tied neither too hard nor too loose. Such *Uttita Sira* are taken for *Vyadhana Karma* with the *Shastras* mentioned.¹⁶

Instruments used for Siravyadha:-

In *Mamsa Pradesha*, *Vrihimukha Shastra* is used for *Vyadhana Karma* as deep as *Yava*, where as in other places it should be *Ardha Yava* or *Vrihimatra Pramana*. If *Siravyadha* to be done above bony prominence, the depth should be equal to *Ardha Yava Matra* with *Kutarika Shastra*.¹⁷

Kala Maryada for Siravyadha:-

Siravyadha should not be performed when the season is too cold or too hot and when there is excess breeze and on cloudy day.¹⁸

Siravyadha should be employed in *Varsha Ritu* when the sky is clear, when it is cool during *Grishma Ritu* and in *Hemanta Ritu* during afternoon.¹⁹

Site of Siravyadha:-

Among the *Vyadhi* enlisted for *Siravyadha*, the *Vyadha Sthanas* are specified and with a landmark of nearby *Sandhi* and *Marmas*, bloodletting is performed. The *Vyadha Sthanas* enlisted for the said diseases by *Acharya Sushruta* and *Acharya Vagbhata* are almost same with few alterations, as can be appreciated by following table.²⁰

Table 2 - Showing sites of Siravyadha in various diseases:-

S. No.	Diseases	Sushrutokta	Vagbhatokta
1	Vatashonita, Padadari, Padadaha, Avabahuka Chippa, Visarpa, Vatakantaka, Vicharchika	2 Angula above the KshipraMarma	2 Angula above the KshipraMarma
2	Krostukasirsa, Khanja, Pangu, Vatavedana	4 Angula above GulphaSandhi	4 Angula above GulphaSandhi
3	Gridhrasi	4 Angula either above or below JanuSandhi	4 Angula either above or below JanuSandhi
4	Vishwachi	Angula either above or below KoorparaSandhi	Angula either above or below KoorparaSandhi
5	Apachi	2 Angula below BastiMarma	2 Angula below BastiMarma
6	Galaganda	UrumoolaSira	UrumoolaSira
7	Pliharoga	Sira present near VamaKoorparaSandhi between Kanishta and Anamika	Sira present near VamaKoorpara Sandhi between Kanishta and Anamika
8	Yakrutdalyudara, Kaphodara, Shwasa	Dakshina KoorparaSandhi gataSira or Sira between Dakshina Anamika and Kanishta	Dakshina KoorparaSandhi gataSira or Sira between Dakshina Anamika and Kanishta
9	Pravahika, Shoola	Sira present 2 Angulas around the Shroni	Sira present 2 Angulas around the Shroni
10	Parivartika, Upadamsha, ShukraRoga, Shukra Dosh	MedhramadhyaSira	MedhramadhyaSira
11	Mootravruddhi	Siras behind the Medhra	Siras behind the Medhra
12	Jalodara	4 Angula below and to left of Nabhi	4 Angula below and to left of Nabhi
13	Antarvidradhi, Parshwashoola	Between Kaksha and Sthana	Between Kaksha and Sthana
14	Bahushosha, Avabahuka	Siras between Amsa	Siras between Amsa
15	TritiyakaJwara	TrikaSandhiMadhya	TrikaSandhiMadhya

16	<i>ChaturthakaJwara</i>	Below <i>AmsaSandhi</i> either of the <i>Parshwa</i>	Below <i>AmsaSandhi</i> either of the <i>Parshwa</i>
17	<i>Apasmara</i>	<i>Sirain HanuSandhi</i> <i>MadhyaBhaga</i>	Anywhere near <i>Hanu</i> or <i>BhruMadhyaSira</i>
18	<i>Unmada</i>	<i>Shankha Madhya</i> and <i>Keshanta</i> or <i>Urahpradesha</i> or in <i>LalataPradesha</i> or <i>ApangaSira</i>	<i>Urah</i> , <i>Apanga</i> and <i>LalataSira</i>
19	<i>Jihwa and dantaroga</i>	<i>JihwaAdhobhagaSira</i>	--
20	<i>Taluroga</i>	<i>TalugataSira</i>	<i>TalugataSira</i>
21	<i>Karna roga</i>	<i>Karna UrdhwagataSira</i>	<i>Karna UrdhwagataSira</i>
22	<i>Mukharoga</i>	-	<i>Siras</i> near <i>Talu,Oshta, Hanu, Jihwa</i>
23	<i>Nasaroga & gandhagrahanahani</i>	<i>NasagraSira</i>	<i>NasagraSira</i>
24	<i>Peenasa</i>	-	<i>Sira</i> between <i>Nasa</i> and <i>Lalata</i>
25	<i>Timira, Akshepaka, adhimanta, shiroroga</i>	<i>UpanasikaSira</i> or <i>LalataSira</i> or <i>ApangaSira</i>	<i>UpanasikaSira</i> or <i>LalataSira</i> or <i>ApangaSira</i>
26	<i>Jatrudhwagranthi</i>	-	<i>Greeva, Karna, Shankha</i> and <i>ShirastitaSira</i>
27	<i>VatajaShleepada</i>	4 <i>Angula</i> above <i>GulphaSandhi</i>	-
28	<i>PittajaShleepada</i>	Below <i>GulphaSandhi</i>	-
29	<i>KaphajaShleepada</i>	4 <i>Angula</i> above <i>KshipraMarma</i>	-

According to *Acharya Sushruta* in *Krostukasirsa, Khanja, Pangu* and *Vatika* conditions, *Siravyadha*[venepuncture] should be done in the leg four finger above *Gulfa*(ankle).If the *Sira* specified are not visible,then the visible *Sira* near the area,avoiding *Marma sthana* should be taken for *Siravyadha*.

The Posture advised for Siravyadha:-

The *Pada* in which *Siravyadha* has to be performed, should be placed on a ground level while the other leg should be raised at a little higher level in a flexed position.The leg in which *Vyadhana* is to be performed should be tied with a piece of cloth below the *Janu Sandhi* and pressed with the hands down to the *Gulpha Sandhi*. *Yantrana* should then be done four fingers above the site of *Siravyadha* and procedure is carriedout.²¹

In a similar ways, certain postures are advised for *Grudhrasi, Vishwachi* and diseases of *Uttamanga* and *Koshta*.

Raktamokshana Pramana:-

According to *Acharya Sushruta*

बलिनो बहुदोषस्य वयःस्थस्य शरीरिणः ।

परं प्रमाणमिच्छन्ति प्रस्थं शोणितमोक्षणे ॥१६॥²² (Su.Sha.8/16)

The *Raktamokshana* up to the quantity of one *Prastha* measure is advised for a *Rogi* who is *Balavan*, *Vayastha* and with *Bahudosha*.

According to *Ashtang Hardaya*, the *Ashuddha Asra*(vitiated blood) should not be subjected to *Srava* (bloodletting) for more than one *Prastha* (i.e. 13 ½ *Pala*=768 ml),even if the patient is *Balina* (strong). *Atisruti* (excessive bloodletting)will lead to either *Mrityu* (death) or *Daruna Chala Amaya* (dreadful diseases of *Vata Dosha*).²³

शोणितं स्रावयेज्जन्तोरामयंप्रसमीक्ष्य च ।

प्रस्थंप्रस्थार्धकं वापि प्रस्थार्धमथापि वा ॥ [शा. उ. 12/1]

According to *Sharangdhar* quantity of the blood to be removed as blood letting varies from one *Prastha*, half of a *Prastha* or quarter to *Prastha*.²⁴

Acharya Dalhana is of the opinion that the volume to be let out in the order of one *Prastha*, half *Prastha* and one *Kudavaas Uttama*, *Madhyama* and *Adhama Matras* respectively. The above mentioned quantity is indicated for the bloodletting and that must too to be done in 2 days.

Table 3-Amount of blood withdrawal in bloodletting/Siravyadha:-

(According to various *Acharayas*)

One <i>Prastha</i> (16 <i>Pala</i> =64 <i>Tola</i>)	768 ml
Half <i>Prastha</i> (8 <i>Pala</i> =32 <i>Tola</i>)	384 ml
Quarter <i>Prastha</i> (4 <i>Pala</i> =16 <i>Tola</i>)	192 ml

But as per the current scenario the amount of blood to be taken per sitting/course of therapy in blood letting is thing of debate. In practice these days at most of the centers the amount varies from 20-40 ml taken either through venesection or venepuncture. The amount mentioned in the reference texts varies from 192 ml -768ml is quite a different volume. The amount mentioned as per the reference texts is of quite large volume and is a thing of concern in terms of the acceptability both by the patient, the practitioners of blood letting and the other medical fraternity.

If suspicious of *Dosha* remaining still even after *Raktamokshana* should be managed by *Shamana Chikitsa* but excess blood should not be let out.²⁵

Samyak Viddha Lakshana:-

During *Siravyadha*, when the blood which is flowing freely stops on its own, it has to be known that *Shodhana* has taken place and is indicative of *Samyak Visravana*.²⁶

A well and successfully *Viddha Sira*, bleeds in stream and spontaneously stops after a *Muhurta*.

The vitiated blood is seen first to flow out of an opened *Sira*, like the drop of yellow pigment first coming out of a *Kusumbha* flower.²⁷

Lightness, cessation of pain, decrease in the intensity of *Vyadhi* and cheerfulness of mind are symptoms of proper bloodletting.²⁸

Heena Viddha Karana:-

Siravyadha, if done on a cloudy day, if *Vyadhana* is improper, if affected with cold and breeze, if *swedana* is not done earlier, and if done after meals, then the blood having become thick, doesn't flow out as much as required or flows out in little quantity. In person suffering from *Mada*, *Murcha* and *Shrama*, who have suppressed the urges of *Vata*, *Vita* and *Mutra*, who are in the grip of sleep and fear, *Rakta* doesn't flow out.

Heena Viddha Lakshana:-

The vitiated blood if not let out properly, leads to *Shophya*, *Kandu*, *Raga*, *Daha*, *Paka* and *Vedana*.²⁹

Atiraktasrava Karana and Lakshana:-

If ignorant person perform *Siravyadha*, during hot season, after excessive sudation in excessive measures, blood flows out excessively which gives rise to *Shiroabhitapa*, *Aandhya*, *Adhimantha*, *Timira*, *Dhatukshaya*, *Akshepaka*, *Daha*, *Pakshaghata*, *Ekanjavikara*, *Hikka*, *Shwasa*, *Kasa*, *Pandu Roga* And *Marana*.³⁰

Dushtyavyadha Prakara:-

There are 20 types of defectively done *Siravyadha* procedure. They are *Durviddha*, *Atividhha*, *Kunchita*, *Picchita*, *Kuttita*, *Apasruta*, *Atyudeerna*, *Anteviddha*, *Parishushka*, *Kunita*, *Vepita*, *Anuttitavidhha*, *Shastrahata*, *Thiryakvidhha*, *Viddha Apavidhha*, *Avyadhya*, *Vidrutha*, *Dhenuka*, *Punarvidhha*, *Mamsa Sira Snayu Asthi* and *Sandhi Marma Viddha*.³¹

Asamyak Siravyadha Chikitsa:-**1) Rakta Apravrtamana Chikitsa:-**

If blood doesnot properly flow out during the procedure, then *Sukshma Churna* of *Ela*, *Sheetashiva*, *Kushta*, *Patha*, *Bhadradaru*, *Vidanga*, *Chitraka*, *Trikatu*, *Agaradhuma*, *Haridra*, *Arkankura*, *Naktamala Phala* of these either all combination mixed *Lavana* and *Taila*, should be rubbed on *Vyadha Sthana*, by which blood flows out proper.³²

2) *AtiraktasravaChikitsa:*

There are 4 methods of preventing excess bleeding:

- | | |
|--------------------|-------------------|
| 1) <i>Sandhana</i> | 3) <i>Pachana</i> |
| 2) <i>Skandana</i> | 4) <i>Dahana</i> |

Pathya-Apathya after Siravyadha:-

As *Atiraktasrava* leads to *Dhatu Kshaya*, invariably deranging *Agni* and provoking *Vata*, the patient should be advised such *Aharas* which are *Laghu*, *Snigdha*, *Shonitavardhana* and avoiding *Atisheeta* and *Amla Padarthas /Ahara*.³³

Importance of Siravyadha:-

- *Siravyadha* is a simple, cheap, safe, and effective in the management of symptoms of disease like pain etc.
- There is no need to be hospitalization of the patient in the procedure.
- It can cure the disease when other treatment does not have effect on disease or when other treatment fails and give immediate relief in symptoms.
- It is helpful to eliminate *Doshas* from *Shakhas* and in this therapy there is no need to bring the *Doshas* in *Kostha*.³⁴

Discussion:-

Joint arthropathies constitute maximum number of visits from patients in orthopaedic clinics. Knee is largest and most complex joint of human body. The most constant knee structural changes with increasing age are increase in cartilage defects that is cartilage thinning, osteophytic proliferation and synovial involvement (synovial irritations and low grade inflammations) of the joint concerned. High-impact and tensional loads can increase the risk of degeneration of normal joints. These are more likely in individuals who have an abnormal joint anatomy, joint instability or inadequate muscle strength.

Non-specific knee effusion is the condition secondary to synovial irritation followed by synovial inflammation of the affected joint .The condition is much prevalent after the age of 35 years, in obese and in persons involved in exertionous activities.

In modern science various treatment modalities are available for non-specific knee effusion but conservative management is the preeminent management advised prior to any para-surgical or surgical intervention. In contemporary science NSAID's is the treatment of choice for non-specific knee effusion as conservative measures. *Ayurveda* medicines with anti-inflammatory property can be the outstanding substitute of NSAID's as conservative management of non-specific knee effusion. In *Ayurveda* classics there is the description of many such formulations that possess the ability of the conservative management for knee effusion.

Siravyadha:-

Siravyadha is one such radical treatment especially concerned with *Dusta Rakta Nirharana*.

Raktamokshana (Bloodletting) is the *Shodhana* (purification) therapy and is recommended to remove the vitiated *Dosha* from the nearest route of *Roga Adhithana*, for correction of vitiated *Dosha* to reinstate the *Tri-Dosha* equilibrium. *Siravyadha* is indicated predominantly in *Pitta*, *Rakta* and *Kaphaja Vyadhi* or when *pitta* or *Kapha* is in *Anubandha* to *Vata Dosha*. *Siravyadha* removes the *Avarana* of *Kapha* or *Pitta Dosha* giving way for *Anulomana* indirectly cures the *Vatika* symptoms along with *Pitta* or *Kapha Dosha* and patient gets immediate relief in sign and symptoms.

The therapeutic effects of bloodletting can be explained as per the contemporary science through various postulates like removal of circulating mediators of inflammation, removal of end products of metabolism, improved perfusion, improved metabolism, improved tissue repair, improved sympathetic nerve function, improved immune mechanism leading to the improvement or cure of the conditions.

Conclusion:-

According to Ancient Ayurveda literature, *Siravyadha* (Venepuncture) of *Raktamokshana* (Bloodletting) is an important *Anushalya Karma* (Para surgical procedure). According to *Sushruta Samhita* and *Ashtanga Sangraha*, *Siravyadha* (Venepuncture) is half the treatment or full treatment in *Shalya Tantra* like *Basti* (Ayurvedic enemas) in *Kayachikitsa*. *Siravyadha* is a very suitable and effective treatment for *Krostukasirsa* w.s.r. to Non-Specific Knee Effusion, which is being used in the treatment of *Krostukasirsa* from ancient times to the present day. Many studies have been done in the field of Ayurveda on the use of *Siravyadha* for *Krostukasirsa*, in which the results are as per expectations and very promising.

References:-

1. *Sushruta Samhita* edited with *Ayurveda Tatva Sandipikaby* Kaviraja Ambika Dutta Shastra Chaukhambha Sanskrit Sansthan, *Nidana Sthana*, chapter 1/76p-244.
2. *Sushruta Samhita* edited with Sushrutvimarshinee by Vaidhya Anantram Sharma Chaukhambha Sanskrit Sansthan, *Chikitsa Sthana*, chapter 5/23,p- 220.
3. *Ashtanga Hridaya* Nirmala Hindi commentary by Dr.Brahmanand Tripathi, Chaukhambha Sanskrit Sansthan, *Nidana Sthana*, chapter 15/52, p-543.
4. *Maadhav Nidaanam* edited with Vimala – Madhudhara Hindi commentary volume: 1 by Dr.Brahmanand Tripathi, Chaukhambha Surbharti Prakashan, chapter 22/58, p- 541.
5. *Chakradutta* edited by Dr.Indradev Tripathi Chaukhambha Sanskrit Sansthan, chapter-22/62.p-199.
6. *Sharangdhara Samhita* annotated with Dipika Hindi commentary by Dr.Brahmanand Tripathi, Chaukhambha Ayurvijnan Granthamala.(S.P.K7/07)
7. *Yogratnakar* edited with Vidhyotini Hindi commentary by Vaidhya Shri Laxmipati Shashtri, Chaukhambha Prakashan *VaatVyadhi Nidana– Krostukasirsa*, p- 511.
8. *Bhavprakash* edited with Vidhyotini Hindi commentary by Bhisagatna Pandit Sri Brahma Sankara Misra, part II, Chaukhambha Sanskrit Sansthan, *Madhyam Khanda*-9/155, p-252.

9. *Sushruta Samhita* edited with Sushrut vimarshinee by Vaidhya Anantram Sharma Chaukhambha Sanskrit Sansthan, *Chikitsa Sthana*, chapter 5/23, p-33.
10. *Maadhav Nidaanam* edited with Vimala-Madhudhara Hindi commentary volume: 1 by Dr. Brahmanand Tripathi Chaukhambha Surbharti Prakashan, chapter 22/2, p- 523.
11. *Chakradutta* edited by Dr. Priyavrat Sharma, Chaukhambha Orientalia, chapter- 22/65, p-191.
12. *Yogratnakar* edited with Vidhyotini Hindi commentary by Vaidhya Shri Laxmipati Shashtri, Chaukhambha Prakashan, *Vaat Vyadhi Chikitsa-Krostukasirsa-2* , p- 596.
13. *Bhavprakash* edited with Vidyotini Hindi commentary by Bhisagatna Pandit Sri Brahma Sankara Misra, part II, Chaukhambha Sanskrit Sansthan, *Madhyam Khanda-24/ 156*, p-675.
14. *Sushruta Samhita*, edited with *Ayurveda Tatva Sandipika* by Kaviraja Ambika Dutta Shastri Chaukhambha Sanskrit Sansthan, *Sharir Sthana*, chapter 8/23, p-244.
15. *Sushruta Samhita*, edited with *Ayurveda Tatva Sandipika* by Kaviraja Ambika Dutta Shastri Chaukhambha Sanskrit Sansthan, *Sharir Sthana*, chapter 8/3 p-63.
16. *Sushruta Samhita*, edited with *Ayurveda Tatva Sandipika* by Kaviraja Ambika Dutta Shastri Chaukhambha Sanskrit Sansthan, *Sharir Sthana*, chapter 8/6 p-63.
17. *Sushruta Samhita*, edited with *Ayurveda Tatva Sandipika* by Kaviraja Ambika Dutta Shastri Chaukhambha Sanskrit Sansthan, *Sharir Sthana*, chapter 8/9 p-64.
18. *Sushruta Samhita*, edited with *Ayurveda Tatva Sandipika* by Kaviraja Ambika Dutta Shastri Chaukhambha Sanskrit Sansthan, *Sharir Sthana*, chapter 8/7 p-63.
19. *Sushruta Samhita*, edited with *Ayurveda Tatva Sandipika* by Kaviraja Ambika Dutta Shastri Chaukhambha Sanskrit Sansthan, *Sharir Sthana*, chapter 8/10 p-64.
20. *Sushruta Samhita*, edited with *Ayurveda Tatva Sandipika* by Kaviraja Ambika Dutta Shastri Chaukhambha Sanskrit Sansthan, *Sharir Sthana*, chapter 8/17 p-66.
21. *Sushruta Samhita*, edited with *Ayurveda Tatva Sandipika* by Kaviraja Ambika Dutta Shastri Chaukhambha Sanskrit Sansthan, *Sharir Sthana*, chapter 8/8 p-63-64.
22. *Sushruta Samhita*, edited with *Ayurveda Tatva Sandipika* by Kaviraja Ambika Dutta Shastri Chaukhambha Sanskrit Sansthan, *Sharir Sthana*, chapter 8/16 p-65.
23. *Ashtanga Hridaya* by Dr. Deepak Yadav 'Premachand', Chaukhambha Surbharat Prakashan, *Sutra Sthana*, chapter 27/20, p-325.
24. *Sharangdhar Samhita*, Translated in English by Prof. K.R. Srikantha Murthy, Chaukhambha Orientalia, *Uttara Khanda*, chapter 12/01 p-253.
25. *Sushruta Samhita*, edited with *Ayurveda Tatva Sandipika* by Kaviraja Ambika Dutta Shastri Chaukhambha Sanskrit Sansthan, *Sharir Sthana*, chapter 8/15 p-65.

26. *Sushruta Samhita*, edited with *Ayurveda Tatva Sandipika* by Kaviraja Ambika Dutta Shastri Chaukhambha Sanskrit Sansthan, *Sharir Sthana*, chapter 8/11 p-64.
27. *Sushruta Samhita* , edited with *Ayurveda Tatva Sandipikaby* Kaviraja Ambika Dutta Shastri Chaukhambha Sanskrit Sansthan, *Sharir Sthana* chapter 8/12 p-65
28. *Sushruta Samhita*, edited with *Ayurveda Tatva Sandipikaby* Kaviraja Ambika Dutta Shastri Chaukhambha Sanskrit Sansthan, *Sutra Sthana*,chapter 14/33p-54.
29. *Sushruta Samhita*, edited with *Ayurveda Tatva Sandipikaby* Kaviraja Ambika Dutta Shastri Chaukhambha Sanskrit Sansthan, *Sutra Sthana*,chapter 14/29p-53.
30. *Sushruta Samhita*, edited with *Ayurveda Tatva Sandipikaby* Kaviraja Ambika Dutta Shastri Chaukhambha Sanskrit Sansthan, *Sutra Sthana*, chapter 14/30p-54.
31. *Sushruta Samhita*, edited with *Ayurveda Tatva Sandipika* by KavirajaAmbika Dutta Shastri Chaukhambha Sanskrit Sansthan, *Sharir Sthana*, chapter 8/18 p-66.
32. *Sushruta Samhita*, edited with *Ayurveda Tatva Sandipikaby* Kaviraja Ambika Dutta Shastri Chaukhambha Sanskrit Sansthan, *Sutra Sthana*,chapter 14/35p-54.
33. *Sushruta Samhita*, edited with *Ayurveda Tatva Sandipika* by Kaviraja Ambika Dutta Shastri Chaukhambha Sanskrit Sansthan, *Sutra Sthana*,chapter 14/37-38p-55.
34. Role of *Siravedhain* the management of pain – a review by Dr Namrata Patel ,Dr Rajesh Gupta,Dr V. D Sharma,Dr Sanjay Singh, Shalya Tantra Dept, Dr Sarvapalli Radhakrishnan Rajasthan *Ayurved* University, Jodhpur, Rajasthan.

