

Management of septic Arthritis through Ayurveda- A single case study

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Abstract:

Septic arthritis is a clinical emergency situation with significant risk factors especially with the case of delayed diagnosis. A 52 years female patient visited outdoor at Viswanath Ayurved Mahavidyalaya & hospital, Kolkata with severe pain and swelling over right knee joint which was diagnosed as septic arthritis. She was shifted to indoor ward and was under Ayurvedic treatment that comprises of *Maha Yogiraj guggul*, *Chandraprova vati*, *Chopchinyadi churna*, *Samir pannag ras*, etc for about a month. The patient was recovered from her illness and symptoms after the completion of the treatment. A significant improvement occurs on overall swelling and redness and general well-being of the patient at the time of discharge. Management of emergency conditions like Septic arthritis through Ayurveda have immense potential.

Keywords: Ayurveda, *Kroustuksirso*, Septic arthritis, *Vatakaphajasotha*.

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Introduction:

The incidence of septic arthritis is 2-3/100,000. [1] It is a clinical emergency situation with significant risk factors especially with the case of delayed diagnosis. Prompt intervention is the need of the time for preventing further functional complications of post-infectious joint destruction or, more seriously, septicaemia, multi organ failure, and even death. Septic arthritis is an inflammatory joint condition caused by a pus forming agent. The most common organism responsible for Joint infection in all age groups is *Staphylococcus aureus*. [2-5]

In Ayurveda the disease can be correlated to of *Krostuksirso* (*Shiva munda*). Ayurveda deals with 80 types of *Vatavyadhi* which is known as *Nanatmaja Vatavyadhi*. *Kroustuk Sirso* is one of such *Nanatmaja Vatavyadhi* which is characterized by profuse swelling and pain over knee joint. This condition may be correlated with the modern disease like Septic Arthritis or Synovitis.

There has been a phenomenal increase in the demand for specialized therapies of Ayurveda. Many of the treatment failure patients of the conventional system of medicine are coming to be treated at the

different institutes of Ayurveda with a hope of recovery in this ancient system of medicine. The present single case study will throw light over the Ayurvedic management of clinical emergency condition like septic arthritis.

Case report:

A 52 years female patient visited the outdoor clinic on 6.3.19. Her chief complain at the time of visit was severe pain and swelling over right knee joint for one month with burning sensation and redness. Patient was diagnosed as Septic Arthritis after synovial Fluid culture showed *Staphylococcus aureus* by an orthopaedic surgeon. She had taken antibiotics but no significant result found after one month of that treatment. Then she had come to this Hospital at O.P.D. and advised to admit her. She was shifted from outdoor to indoor ward on the same day under advisement. In family history, no evidence of the type of disease was noted by patient in the family

Physical examination:

Anaemia: (+) ve, Icterus: (-) ve, Cyanosis: (-) ve, Clubbing: (-) ve, Edema: (+++++) ve, CVS: S1 & S2 audible, Chest: B/L clear, Temp.: 100 ° F, B.P.: 130/90 mm of Hg, Pulse: 88 beats/min.

Table-1: Laboratory investigation:

Investigations	Before Treatment	After treatment
FBS	117	111
PPBS	196	146
HbA1C	7	7
TSH	6.7	5.7
CRP	20	05
CBC	Within normal range	Within normal range
LFT	Within normal range	Within normal range

LIPID PROFILE	Within normal range	Within normal range
Urea,Creatnine , Uric acid	Within normal range	Within normal range

Treatment given:

The patient was administered with Ayurvedic classical medicines mentioned in table 1. On 9.3.19 another medicine was added with the existing medicines. Patient was discharged on 10.04.2019 with the final diagnosis of *Krostuksirso (Shiva munda)* with *Madhumeha* with *Vatakaphajasoath*

(Septic Arthritis with DM2 with Hypothyroidism). With following medicines mentioned in table 1.

Pathya-Apathya

Apathya: Patient advised to avoid Chana (*Cicer sp.*), matar(*Lathyrus sp.*), badam(*Arachissp*), curd, *Musa paradisiaca*, eggs, ladies finger, Urad dal (*Vigna sp.*).

Table 1: Treatment given:

Date	Medicine	Dose
06.03.19	Tab <i>Chandraprova vati</i> 125mg	2 Tab BDPC (two times a day after meal)with plain water
	Tab <i>Maha Yograj guggulu</i> 500mg	2Tab BDPC(two times a day after meal) with plain water
	<i>Chopchinyadi churna</i>	125 mg BD(two times a day) with pinch of butter
	<i>Samir pannag ras</i>	500 mg two times with a cup of milk
	<i>Dasamoolyavkwath</i> decoction	<i>Swedana</i>
9.3.19	<i>Vidanga churna</i>	1 tablespoon at bed time with luke warm water
10.4.19(patient was discharged with followup medicines)	<i>Vidanga churna</i>	1 tablespoon at bed time with luke warm water
	<i>YogirajGuggulu</i> -500mg	2Tab BDPC(two times a day after meal) with plain water

Clinical images:**Fig-1: Before treatment (6.3.19)****Fig-2: During treatment (18.3.19)****Fig-3: During treatment (30.3.19)****Fig-4: After treatment (10.4.19)****Result and Discussion:**

A significant improvement occurs on overall swelling and redness and general wellbeing of the patient at the time of discharge. After the discharge on a follow up visit the patient was almost recovered from the symptoms [Clinical images]

The Ayurvedic pathogenesis of *Kroustuk Sirsa* (Septic Arthritis or Synovitis) is an accumulation of *Dusta Rakta* in the knee joint being provoked by aggravated *Vayu*. In this condition the *RaktaVaha Shrotas* being obstructed by *Kapha* which comes through

the malfunctioning of the aggravated *Vayu*^[6] So in this event as knee joint is the place of *Slesmak Kapha* but aggravated *Vayu* insisted it to make obstruction of circulated blood within the joint space, so the lower portion of knee joint as well as lower portion of thigh above the knee joint become dried up or atrophied and the structure becomes swelled as an head of the Jackal and is called *Shiva Munda* or *Kroustuk Sirsa*. In this condition an active inflammatory pathological state comes around which may be called as *Pradaha*.

The *Raktasodhak Dravyas* are known to *Pittasamak* means *Pradahsnasak* so the line of management should be as like as *Vatarakta* of Ayurveda. The pacification of *Vayu* and purification of *Rakta Dhatu* is the basic aim towards *Samprapti vighatan* (*Prakriti Sthapan*) by clearing the channel (*Sroto Sodhan*) to reduce *Avarana* (covering or obstruction). As *Rakta Dhatu* bears the character of *Pitta* so there is redness, warm and as aggravated *Vayu* causes *Shoola* (pain) so by introducing some *Rakta Sodhak Oushodhi* as well as *Vata Samak Oushodhi* the treatment should be planned.

Though classically *Kroustuk Sirsa* is treated as per the principal of *Vata Rakta* and *Rakta Mokshana* (blood-letting), *Sira Vyadh* (Puncturing the vessels) are done yet in present study only *Samsoman* therapy has been introduced where *Samir Pannag Ras* 500mg twice daily has been used to reduce *Shoola* (pain) by pacifying *Vata* and clearing the channel (*SrotoSodhan*). *Maha Yograj Guggul* 500mg twice daily works as *Sroto Sodhak* and *Pradaha Nashak* (Anti-inflammation), *Chandra Prabha vati* 2 tablets twice daily acts to rejuvenate the joint structures and to reduce the swelling. *Chopchunyadi churna* 125mg twice daily with butter causes *Deepan* (metabolic activator) and *kriminasak* (antimicrobial), *Dasamul Kwath* works as *Vata Samak* (reduces pain) and *sothanasak* (anti-inflammatory), *Vidanga Churna* acts as *Kriminashak* (antimicrobial).

These above mentioned treatment protocols are said to be potent *Vata Samak*, *Rakta Sodhak* or *Pitta Samak* as well as *Sroto Sodhak* agents additionally effect on some

other ingredients as *Rasayan* (nutritive), *Deepan* (metabolic corrective) and *Kriminashak* (anti-microbial). Those medicines became able to give relief in one month span to the patients who has attended OPD on 06/03/2019 with the features of Acute Septic Arthritis like severe pain and swelling over knee joint and having the body temperature 100° F.

Conclusion:

From this case study it could be concluded that septic Arthritis or Acute Synovitis may be correlated with the Ayurvedic ailment *KroustukSirsa* or *Shiva Munda*. *Chandraprabha vati*, *Maha Yograj Guggul*, *Chopchinydi Churna*, *Samir Pannag Ras*, *Dashamul Kwath* and *Vidanga Churna* are the treatment protocol for the treatment of *Kroustuk Sirsa*. No such adverse effect observed during the course of treatment in this patient.

Limitation of study:

For the management of clinical emergency situation like the case of septic arthritis, though Ayurved has immense potential, more practical implementation is needed for having adequate scientific and clinical database.

Declaration of patient consent:

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient has given her consent for her images and other clinical information to be reported in the journal. The patient understand that her name and initials will not be published and due efforts will be made to conceal her identity, but anonymity cannot be guaranteed.

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