

## Clinical Study on Shiva Guggulu and Baluka Swedana in The Management of Aamvata (Rheumatoid Arthritis) In Children

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### ABSTRACT

**Introduction:** Juvenile Rheumatoid Arthritis is an autoimmune, non-infective and inflammatory joint disease of children. It is most common form of arthritis in children. Rheumatoid arthritis can be co-related with Aamvata, but no clear reference is found about its relation to juvenile age group. There is no clear description of Aamvata in Brihatrayi. Firstly, Aamvata has been described as an independent disease in Madhava Nidaan. It is a disease of Madhyam Rog Marga as it affects Sandhi (joints) and Hridaya Marma (heart). Aam and Vata are playing important role in the pathogenesis of this disease. The affliction of Sandhis by Vata dosha in association with Aam reflects the equal role of both dosha and dushya in the causation of the disease. The responsible factor for

**Objectives:** To evaluate the efficacy of Shiva Guggulu and Baluka Swedana in the management of Aamvata.

**Methods:** Thirty subjects diagnosed with Aamvata were selected. The selected children were treated with Shiva Guggulu twice daily for 45 days along with Baluka Swedana once daily with one-week gap in 2 sitting of 7 days. Thus total 3 times (24) Baluka Swedana was advocated to selected patients.

**Results:** Treatment was found to be statistically extremely significant ( $P < 0.0001$ ) with respect to subjective and objective parameters during the course of Shiva Guggulu and Baluka Swedana.

**Conclusion:** It was concluded that the trail drug Shiva Guggulu & Baluka Swedana gave statistically extremely significant effect in the subjective & objective parameter of Aamvata. No any adverse effects were observed during study.

**Keywords:** Aamvata; Baluka Swedana; Hridya Marma; Juvenile Rheumatoid Arthritis

## INTRODUCTION

The most common type of arthritis in children is Juvenile rheumatoid arthritis. Its prevalence rate is from 0.4 to 1.3 per 1000 children below 16 years of age [1]. Rheumatoid arthritis and Aamvata may be associated in Ayurveda, yet there is no explicit mention of this relationship in regard to the juvenile age range. There is no clear description of Aamvata in Brihatrayi. Aamvata has been described firstly as an independent disease in Madhava Nidaan [2]. It is a disease of Madhyam Rog Marga as it affects Sandhi (joints) and Hridya Marma (heart). Aam and Vata are playing important role in the pathogenesis of this disease. The affliction of Sandhis by Vata dosha in association with Aam reflects the equal role of both dosha and dushya in the causation of the disease [3]. The responsible factor for the manifestation of Aamvata is Aam. The impairment of Agni produces Aam, it is an unprocessed and undigested food substance which acts as toxin in body. Due to Agni's hypofunction, a remnant of Ahara Rasa remains undigested, and it is known as Aam, which is the root cause of all diseases [4]. The first Rasa dhatu, which has been inadequately digested due to weak digestive fire and stored in the stomach [5]. It circulates in the whole-body system through blood stream and vitiates the Vata dosha. This Aam along with Vyan Vayu and also by virtue of its Vishakari Guna it quickly moves to all Kapha sthana through Hridaya and Dhamanis [6]. This Vidhagada Aam, in Kapha Sthana is further contaminated by Doshas and assumes different colures, because of the Atipichhilata Guna. It produces Dourbalya (weakness) and heaviness in heart. It also affects simultaneously the joints of the body such as those of waist, neck, shoulder etc. This dreadful disease known as Aamvata producing stiffness of the body become a cause of many other disease also [7].

In modern science, Juvenile Rheumatoid Arthritis is an autoimmune, non-infective and inflammatory joint disease of children. Clinical manifestation can also see from neonate to adult age although more prominent in 7-12 age group [8]. It affects both sex but western studies suggest that JIA is most common in girls while in India, female predominance is not marked [9]. The term juvenile idiopathic arthritis (JIA) was proposed by the Pediatric Standing Committee of the International League of Associations for Rheumatology (ILAR). It is defined as arthritis persisting for at least 6 weeks [10].

Juvenile rheumatoid arthritis may be transient and self-limiting. JIA refers to a diverse set of illnesses that all have arthritis as a clinical presentation. The etiology and pathophysiology of JIA are mostly unknown, and the genetic component is complicated, making it difficult to differentiate between different subtypes. As a result, there are a variety of classification schemes, each with its own set of constraints [11]. On long standing condition, patient move on chronicities and presented with numerous deformities [12]. Although its etiopathology is just similar to Rheumatoid Arthritis but cartilage erosion, joint instability and negative rheumatoid factor make it different [13]. Juvenile Rheumatoid arthritis affects small joints of hands and feet, after that may spread large joints [14]. Its cardinal feature is swelling of affected joints. Juvenile Rheumatoid arthritis cause significant growth retardation of joints as well as other body system [15].

## NEED OF STUDY

In modern science many drugs are available for pain management and inflammation such as Non-Steroidal Anti-Inflammatory Drugs (NSAIDs), Steroids and immunosuppressant drugs etc. which not only alleviate pain but also give some untoward effects in patient like gastritis, nausea, stomach ache, poor growth and weight gain etc. along with some serious complications. Hence the sufferers of this disease are in continuously a cheap, effective and untoward free solution. In this regard, Ayurveda could be search of better alternative to provide cheap and side effect free management of Aamvata. Shiva Guggulu described in Bhaishajya Ratnavalli & Rasendra Sara Sanghaha under the Aamvata Chikitsa is selected for present study. Along with this to alleviate pain in Aamvata Baluka Swedana which provides Rukhsa Swedana (dry sudation) was selected.

## AIMS & OBJECTIVES

1. To evaluate the efficacy of Shiva Guggulu in the management of Aamvata (Rheumatoid Arthritis) in children.
2. To evaluate the effect of Baluka Swedana in the management of Aamvata (Rheumatoid Arthritis) in children.
3. To collect literature available on Aamvata (Rheumatoid Arthritis) in children.

## IEC & CTRI REGISTRATION

This study was approved by the institutional ethical committee Approval no-S.No./DSRRAU/UCA/IEC/19-20/313 on dated July 8, 2020 and registered under the Clinical Trials Registry of India (CTRI) with registration no. CTRI/2021/05/033414

## MATERIAL AND METHODS

(A) Selection of Cases: -

1. Source of Patients- Children affected from Aamvata (Rheumatoid Arthritis) were selected from OPD & IPD of P.G. Department of Kaumarbhritya and medical camps.
2. Number of Patients- Total 35 patients were registered for the present study. But 05 patients were dropout during study. Therefore, study was conducted on 30 patients.
3. Age of Patients- Children suffering from Aamvata were of 7 years to 16 years of age selected for the present study.
4. Type of study- Open Study Single Arm Randomized Trial
5. Duration of study-45 days
6. Follow up- every 15th day (fortnightly) for 3 months
7. Posology-The selected children were treated with Shiva Guggulu twice daily for 45 days along with Baluka Swedana once daily with one week gap in 2 sitting of 7 days. Thus total 3 times (24) Baluka Swedana was advocated to selected patients.

(B) Diagnostic Criteria

Inclusion Criteria

1. Children having age of 7 to 16 years of either sex were selected for study.
2. Children having sign and symptoms of Aamvata.
3. Pre-diagnosed and confirmed cases of Aamvata were considered in study.

#### Exclusion Criteria

1. Children having age below 7 years and above 16 years were excluded from study.
2. Children having congenital deformities were excluded from study.
3. Children suffering from any chronic illness such as Psoriatic Arthritis, Septic Arthritis, metabolic disorder like Diabetes Mellitus, liver diseases etc. were exclude from study.

#### Discontinuation Criteria

1. Any acute or severe illness.
2. Parents/ patient were not willing to continue the treatment

#### Adverse Drug Reaction

For ADR recording a Performa was developed. However, there were no ADR seen during complete study.

**Table 1:** Showing the Grouping and Posology.

Name of Drug	Shiva Guggulu+ Baluka Swedana
Number of patients	30
Duration of Drug Trail	45 Days
Duration	Shiva Guggulu-Twice a day
	Baluka Swedana-Once a day
Anupana	Luke warm water
Route	Shiva Guggulu-oral
	Baluka Swedana-Local application
Type of study	Open study
Randomization	Simple random sampling

**Table 2:** Contents of Shiva Guggulu.

S.No.	Ingredient	Latin name	Part used
1	Haritki	Terminalia chebula Retz.	Fruit
2	Vibhataki	Terminalia bellirica Roxb.	Fruit
3	Amalaki	Emblica officinalis Gaertn.	Fruit
4	Eranda	Ricinus communis Linn.	Oil
5	Guggulu	Commifera Mukul Hook ex stocks	Nirays
6	Shunthi	Zingiber officinale Rosc.	Rhizome
7	Pippali	Piper longum Linn.	Fruit
8	Marich	Piper nigrum Linn.	Fruit
9	Rasna	Pluchea lanceolata C.B. Clarke	Leaves
10	Vayavidang	Embelia ribes Burm.	Fruit
11	Dantimool	Baliospermum montanum Muell-Arg.	Root
12	Devdaru	Cedrus deodara (Roxb.) Loud.	Kandsar
13	Jatamansi	Nordostachys jatamansi DC	Root
14	Gandhak	-	-

Dose-The dose of drug administration was calculated based on young's formula. In this formula adult dose was 1gm mentioned in Bhaishjya Ratanavali.

Young's formula: - **Adult dose X Age in years / Age + 12**

**Table 3:** Dose of Shiva Guggulu as per the Young Formula

Drug	Shiva Guggulu		
	7-9 years	10-12 years	13-16 years
Drug Dose	200 mg BD	250 mg BD	275 mg BD

### Drug preparation method

Firstly, Gandhak was purified by Godugdha (cow milk) and Goghrita (cow ghee). After that, Triphala Kwath was made with 900gm yavkut of Triphala 8 in times water. During boiling process, Guggulu was added in it. When Kwath (decoation) was left one fourth Guggulu got melted completely and got mixed itself into the decoation. It was then filtered through multi-layered cloth. Then make powder all drugs mentioned at serial no. 6 to 13 were grinded by pulverizes. This thick concentrate was mixed with powdered drugs. Eranda oil was also mixed in thick concentration. After that purified Gandhaka was pulverized very well and mixed into thick concentration. All these were mixed all together and were converted into tablet form weighing 200mg, 250mg and 275mg.

### Statistical Analysis

All the results were calculated by using **Software- InStatGraphPad 3**. For Nonparametric Data Wilcoxon signed rank test was used while for Parametric Data Paired ‘t’ Test was used and results were calculated.

## CLINICAL OBSERVATION & RESULTS

### Observation of the Aamvata (Rheumatoid Arthritis) affected children

Total 35 patients were selected for the study of Aamvata in children (Juvenile Rheumatoid Arthritis) but only 30 patients completed study. Total 30 patients were continuing during this trial out of 35 patients. Rest 5 patients were dropped out before complete their trial period. Demographic data of study was shown in **Table 4**. Joint involvements were shown in **Table 5** and incidence of symptoms is shown in **Table 6**.

**Table 4:** Showing the demographic data of the Aamvata (Rheumatoid Arthritis) affected children.

Observations	Maximum Observation	Percentage
Age	10-12 years	40%
Sex	Female predominance	63.33%
Religion	Hindu	83.33%
Socioeconomic status	Middle class	33.33%
Residence	Rural area	60%
Dietary Habits	Vegetarian	66.66%
Sharirika prakriti	Vata-Kapha prakriti	53.33%
Manasika prakriti	Rajasika-Tamsika prakriti	66.66%
Samhana	Madhyam Samhanana	73.33%
Satmya	Vyamishra Satmya	83.33%
Satva	Madhyam Satva	63.33%
Vyayama shakti	Avar Vyayama shakti	53.33%
Abhyavarana shakti	Madhyam Abhyavarana shakti	66.66%
Jaran shakti	Avar Jaran shakti	70%
Vaya	Annada Vaya	100%
Agni	Mandagni	73.33%
Desha	Jangal desha	100%
Koshtha	Madhya koshtha	70%
Addiction	Addicted of Tea	46.66%
Sleep	disturbed sleep	66.66%

**Table 5:** Joint involvement in Aamvata (Rheumatoid Arthritis) affected children.

S.No.	Joint involvement	No. of patients	Percentage
1	Distal interphalageal (UL)	19	63.33
2	Proximal interphalageal	17	56.66
3	Metacarpophalageal	14	46.66
4	Wrist	22	73.33
5	Elbow	15	50
6	Shoulder	14	46.66
7	Distal interphalageal (LL)	17	56.66
8	Proximal interphalageal	18	60
9	Metatarsophalageal	16	53.33
10	Ankle	21	70
11	Knee	25	83.33
12	Spine	9	30
13	Temporomandibular	5	16.66

**Table 6:** Incidence of clinical features in Aamvata (Rheumatoid Arthritis) affected children

S.No.	Symptoms	No. of patients	Percentage
1	Angmarda (Bodyache)	25	83.33
2	Aruchi (Anorexia)	24	80
3	Trishna (Thirst)	19	63.33
4	Aalasya (Laziness)	18	60
5	Gourav (Heaviness)	17	56.66
6	Jwara (Fever)	27	90
7	Apaka (Indigestion)	26	86.66
8	Shoonata (Edema)	22	73.33
9	Morning stiffness	30	100
10	Joint pain	30	100
11	Joint swelling	30	100
12	Fatigue	12	40
13	Irritability	16	53.33

**Table 7:** Effect of drug before and after treatment with associated symptoms.

Variable	Mean		Mean diff.	% Relief	S.D. ±	S.E. ±	P	S
	B.T.	A.T.						
Angamarda	2.43	0.833	1.6	65.76	0.498	0.091	<0.0001	ES
Aruchi	2.37	0.833	1.533	64.76	0.507	0.0926	<0.0001	ES
Trishna	2.47	0.833	1.633	66.19	0.49	0.0895	<0.0001	ES
Aalasya	2.33	0.8	1.533	65.7	0.571	0.1043	<0.0001	ES
Gaurav	2.4	0.833	1.567	65.29	0.504	0.092	<0.0001	ES
Jwara	2.37	0.833	1.533	64.76	0.507	0.0926	<0.0001	ES
Apaka	2.47	0.8	1.667	67.57	0.48	0.0875	<0.0001	ES
Shoonata	2.43	0.8	1.663	67.11	0.49	0.0895	<0.0001	ES
Morning stiffness	2.47	0.833	1.6333	66.19	0.49	0.0895	<0.0001	ES
Joint pain	2.47	0.8	1.667	67.57	0.48	0.0875	<0.0001	ES
Joint swelling	2.37	0.767	1.6	67.59	0.498	0.091	<0.0001	ES
Fatigue	1.93	0.7	1.233	63.78	0.43	0.0785	<0.0001	ES
Irritability	1.9	0.633	1.267	66.68	0.498	0.091	<0.0001	ES

(BT: Before treatment, AT: After treatment, Diff.: Difference, SD.: Standard Deviation, S.E.: Standard Error, P: P value, ES: Extremely Significant)

**Table 8:** Effect of Shiva Guggulu and Baluka Swedana on objective parameters in Aamvata (Rheumatoid Arthritis) affected children.

Parameters	Mean		Mean diff.	% Relief	S.D. ±	S.E. ±	P	S
	B.T.	A.T.						
H.B.	12.19	12.56	-0.37	-3.03	0.471	0.0861	1E-04	ES
TLC	9.408	10.09	-0.6763	-7.18	1.067	0.1948	8E-04	ES
Neutrophils	54.49	51.14	3.357	6.16	8.668	1.583	0.021	S
Lymphocytes	3.593	3.276	0.3167	8.81	0.774	0.1414	0.017	S
Eosinophils	1.044	0.848	0.1957	18.74	0.45	0.0822	0.012	ES
Monocytes	1.875	1.053	0.8217	43.824	1.239	0.2262	0.005	ES
Basophils	0.705	0.485	0.2203	31.23	0.437	0.0798	0.005	VS
ESR	22.11	11.26	10.844	49.05	1.72	0.314	1E-04	ES
CRP	2.253	0.968	1.285	57.03	0.702	0.1282	1E-04	ES
RA factor	20.28	10.31	9.971	49.17	1.119	0.2043	1E-04	ES
RBS	101.9	91.73	10.133	9.94	4.455	0.8133	1E-04	ES

(BT: Before treatment, AT: After treatment, Diff.: Difference, SD.: Standard Deviation, S.E.: Standard Error, P: P value, ES: Extremely Significant)

**Table 9:** Overall effect of Therapy.

S.No.	Effect	No. of patients	Percentage
1	Complete improvement	0	0
2	Marked improvement	6	20%
3	Moderately improvement	24	80%
4	Mild improvement	0	0
5	Unchanged	0	0
	Total	30	100

## RESULTS

### Effect of Shiva Guggulu and Baluka Swedana on Subjective parameters in Aamvata (Rheumatoid Arthritis) affected children

1. Angamarda (Bodyache) -The mean score before treatment was 2.433 which lowered down to 0.8333 after treatment, with  $SD \pm 0.4983$  giving a relief of 65.76% which was statistically extremely significant ( $P < 0.0001$ ). [Table 7]
2. Aruchi (Anorexia) – The mean score before treatment was 2.367 which lowered down to 0.8333 after treatment, with  $SD \pm 0.5074$  giving a relief of 64.76% which was statistically extremely significant ( $P < 0.0001$ ). [Table 7]
3. Trishna (Thirst) - The mean score before treatment was 2.467 which lowered down to 0.8333 after treatment, with  $SD \pm 0.4901$  giving a relief of 66.19% which was statistically extremely significant ( $P < 0.0001$ ). [Table 7]
4. Aalasya (Laziness) - The mean score before treatment was 2.333 which lowered down to 0.8 after treatment, with  $SD \pm 0.5713$  giving a relief of 65.70% which was statistically extremely significant ( $P < 0.0001$ ). [Table 7]
5. Gaurav (Heaviness) -The mean score before treatment was 2.4 which lowered down to 0.8333 after treatment, with  $SD \pm 0.504$  giving a relief of 65.29% which was statistically extremely significant ( $P < 0.0001$ ). [Table 7]

6. Jwara (Fever) -The mean score before treatment was 2.367 which lowered down to 0.8333 after treatment, with  $SD\pm 0.5074$  giving a relief of 64.76% which was statistically extremely significant ( $P<0.0001$ ). [Table 7]
7. Apaka (Indigestion) -The mean score before treatment was 2.467 which lowered down to 0.8 after treatment, with  $SD\pm 0.4795$  giving a relief of 67.57% which was statistically extremely significant ( $P<0.0001$ ). [Table 7]
8. Shoonata - The mean score before treatment was 2.433 which lowered down to 0.8 after treatment, with  $SD\pm 0.4901$  giving a relief of 67.11% which was statistically extremely significant ( $P<0.0001$ ). [Table 7]
9. Morning stiffness- The mean score before treatment was 2.467 which lowered down to 0.8333 after treatment, with  $SD\pm 0.4901$  giving a relief of 66.19% which was statistically extremely significant ( $P<0.0001$ ). [Table no-7]
10. Joint pain- The mean score before treatment was 2.467 which lowered down to 0.8 after treatment, with  $SD\pm 0.4795$  giving a relief of 67.57% which was statistically extremely significant ( $P<0.0001$ ). [Table 7]
11. Joint swelling- The mean score before treatment was 2.367 which lowered down to 0.7667 after treatment, with  $SD\pm 0.4983$  giving a relief of 67.59% which was statistically extremely significant ( $P<0.0001$ ). [Table 7]
12. Fatigue-The mean score before treatment was 1.933 which lowered down to 0.7 after treatment, with  $SD\pm 0.4302$  giving a relief of 63.78% which was statistically extremely significant ( $P<0.0001$ ). [Table 7]
13. Irritability- The mean score before treatment was 1.9 which lowered down to 0.6333 after treatment, with  $SD\pm 0.4983$  giving a relief of 66.68% which was statistically extremely significant ( $P<0.0001$ ). [Table 7]

#### **Effect of Shiva Guggulu and Baluka Swedana on objective parameters in Aamvata (Rheumatoid Arthritis) affected children**

1. H.B. - The mean score before treatment was 12.19 which raised to 12.56 after treatment, with  $SD\pm 0.4714$  giving a relief of 3.03% which was statistically extremely significant ( $P<0.0001$ ). [Table 8]
2. TLC- The mean score before treatment was 9.408 which raised to 10.085 after treatment, with  $SD\pm 1.067$  giving a relief of 7.18% which was statistically extremely significant (0.0008). [Table 8]
3. Neutrophils- The mean score before treatment was 54.494 which lowered down to 51.137 after treatment, with  $SD\pm 8.668$  giving a relief of 6.16% which was statistically significant (0.0213). [Table 8]
4. Lymphocyte- The mean score before treatment was 3.593 which lowered down to 3.276 after treatment, with  $SD\pm 0.7744$  giving a relief of 8.81% which was statistically significant (0.0165). [Table 8]
5. Eosinophils- The mean score before treatment was 1.044 which lowered down to 0.8483 after treatment, with  $SD\pm 0.4503$  giving a relief of 18.74% which was statistically extremely significant (0.0121). [Table 8]



6. Monocyte- The mean score before treatment was 1.875 which lowered down to 1.053 after treatment, with  $SD\pm 1.239$  giving a relief of 43.82% which was statistically extremely significant (0.0005). [Table 8]
7. Basophils- The mean score before treatment was 0.7053 which lowered down to 0.4850 after treatment, with  $SD\pm 0.4373$  giving a relief of 31.23% which was statistically very significant ( $<0.0050$ ). [Table 8]
8. ESR- The mean score before treatment was 22.108 which lowered down to 11.264 after treatment, with  $SD\pm 1.72$  giving a relief of 49.05% which was statistically extremely significant ( $<0.0001$ ). [Table 8]
9. CRP- The mean score before treatment was 2.253 which lowered down to 0.968 after treatment, with  $SD\pm 0.7021$  giving a relief of 57.03% which was statistically extremely significant ( $<0.0001$ ). [Table 8]
10. RA factor- The mean score before treatment was 20.276 which lowered down to 10.305 after treatment, with  $SD\pm 1.119$  giving a relief of 49.17% which was statistically extremely significant ( $<0.0001$ ). [Table 8]
11. RBS- The mean score before treatment was 101.87 which lowered down to 91.733 after treatment, with  $SD\pm 4.455$  giving a relief of 9.94% which was statistically extremely significant ( $<0.0001$ ). [Table 8]

### Overall effect of Therapy

Total 80% patients were found in moderately improved and 20% in markedly improved. Effect of trail drug and therapy “Shiva Guggulu & Baluka Swedana” on subjective parameters was 66.07% while on objective parameters was 25.83%.

## DISCUSSION

Aamvata is a disease of Madhyam Rog Marga as it affects Sandhi (joints) and Hridya Marma (heart). Aam and Vata are playing important role in the pathogenesis of this disease. The responsible factor for the manifestation of Aamvata is Aam, so the drug Shiva Guggulu has qualities that help it digest of Aam and balance Vata-Kapha Dosha.

### Probable modes of action of Shiva Guggulu

The recommended formulation for this experiment was picked from Bhaishjaya Ratanvalli & Rasendra Sara Sanghra under the Aamvata Chikitsa and the components of Shiva Guggulu are Haritki, Vibhataki, Aamalaki, Eranda, Guggulu, Shunthi, Pippali, Maricha, Rasna, Vayavidang, Dantimool, Devdaru, Jatamansi and Gandhak [16]. Laghu, Ruksha Guna and Ushna Veerya is most prevalent in this formulation [17]. Laghu and Ruksha Guna is helps joint inflammation and pain while Ushan Veerya is helps digestion of Aam and Vata -Kapha Shamana [18]. In this formulation, 8 Dravyas out of 14 have Laghu Guna and 11 dravya have Ushna Veerya which helps to maintain Vata and Kapha Dosha and digestion of Aam [19]. 4 dravys have Kaphavatahara quality, 3 dravays have Rechaka, 2 dravays have Anulomana property and 5 dravays have Deepana quality [20]. Most dravays with Tridosahara, Shothahara, Deepana, Rechaka and Anulomana properties to boost the aptitude of Agni which digestion of Aam. Most dravays have strong anti-anaphylactic actions, anti-inflammatory and analgesic properties [21].

### Probable mode of action of Baluka Swedana

It is a Ruksha Swedana, which is helpful to digestion of Aam, mentioned in Yogratanakara Aamvata Chikitsa [22]. According to Ayurveda, Sweat is formed during the metabolism of Medas (adipose tissue). And perspiration plays an important function in keeping the body's fluid balance in check. Sweating also aids in the

elimination of waste and poisons from the body [23]. Baluka Swedana is a technique that involves using a hot sand pack to generate perspiration [24]. This medication is best for Swedana in sick conditions when Snehana is not recommended because Snehana increase Kapha dosha and thus aggravate disease. The sudation procedure, on the other hand, helps to restore Kapha Dosha imbalances and relieve Aam Dosha [25]. As a result, the Baluka Swedana is highly beneficial in Aamvata.

## CONCLUSION

It was concluded that the trail drug Shiva Guggulu & Baluka Swedana gave statistically extremely significant effect in the subjective & objective parameter of Aamvata. No any adverse effects were observed during study. Shiva Guggulu & Baluka Swedana- showed great improvement in most of the disease's cardinal symptoms, as well as CRP, RA factor and ESR.

## CONFLICTS OF INTEREST

There are no conflicts of interest

## FINANCIAL SUPPORTS AND SPONSORSHIP

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