

Research Article**The efficacy of *Rasanjana madhu anjana* in *Arjuna* with special reference to sub-conjunctival haemorrhage - a clinical study**Varsha P. Desai^{1,*}, Shrikant S. Kulat²Assistant Professor^{1,2}Department of Shalakyatantra¹, Department of Kayachikitsa²^{1,2}Dr. Vandanatai J. Dhone Gramin Ayurved College, Patur, Maharashtra, India-431536*** Corresponding Author:** Dr. Varsha P. Desai, **E-mail:** drvarshadesai007@gmail.com

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ABSTRACT:

Redness in eye draws an attention of people which makes them to rush OPD. Conjunctiva is a translucent mucous membrane which lines the posterior surface of the eyelids and anterior aspect of eyeball where subconjunctival hemorrhage is small petechial hemorrhage to an extensive one spreading under the whole of bulbar conjunctiva¹. In Ayurveda it can be compared to Arjuna which comes under shuklagata roga. In this present study case of sub conjunctival hemorrhage is managed with Rasanjan Madhu Anjan for 15 days Yashtimadhu having Pitta Shamak, Shonitha Sthapan property so, setting things in to consideration to patients Rasanjan madhu Anjan was selected for treating the disease Arjun.

KEY WORDS: *Arjun, Anjan, Rasa Pitta Shamak, Rasanjan, Subconjunctival hemorrhage.***INTRODUCTION:**

चक्षुरक्षापां सर्वकालं मनुष्यैर्यत्नः कर्तव्यो जीविते यावदिच्छा ।
व्यार्थो लोकोऽयं तुल्यरात्रिन्दिवानाम पुसामन्धानां विद्यमानेऽपि वित्ते ॥
(अ.ह.उ. १३/१७)

Acharya Vagbhat says that as long as there is desire for living so long all efforts should be made always be men to protect the eyes because for the blind man. Night and day are the same all things for his world are useless without vision though he might have plenty money.

Sushrutacharya our ancient surgeon have explained various diseases of Urdhnavagas where "Arjuna" is one of the Aushadhi Sadhya Vyadhi which is described under Shuklagata Netra Roga.

एको यः शरारुधिरुपमस्तु बिन्दुः । शुक्लस्थो भवति तमर्जुनं वदन्ति ॥
(सु. उ. ४/७)

A single red dot resembling rabbit's blood in Sukla mandala is called Arjuna.

According to modern science Arjuna can be correlated with subconjunctival haemorrhage. It is a common eye disease caused due to ocular trauma or due to spontaneous ocular haemorrhage along with history of chronic hypertension, caught vomiting etc.

Though subconjunctival haemorrhage can be resolve with or without treatment in 15-18 days our Acharyas explain "Arjuna" as a separate Shuklagata Vikara with

its specific lakshna and specific chikitsa in various form of Yogas such as aschotana, Anjana, Parishekha etc.

So the present study is planned to throw light on the efficacy of Rasanjana Madhu Anjana in Arjuna with special reference to sub conjunctival haemorrhage.

AIM AND OBJECTIVES:**AIM:**

To study the efficacy of "Rasanjan-Madhu" Anjana Yoga in "Arjuna" with special reference to sub conjunctival haemorrhage.

OBJECTIVES:

1. To study the "Arjuna" Vyadhi as per Ayurvedic literature.
2. To study the efficacy of "Rasanjana-Madhu" Anjana in Arjuna Vyadhi.
3. Detailed study of Sub conjunctival haemorrhage.

Study Design:

The type of study was randomized, open, labelled, control study. A written consent of the patients was taken before taking them for study.

Period of Study - 15 day.

Inclusion Criteria -

1. Patients having lakshana of Arjuna-vyadhi
2. Patients with age group 18-60 years.
3. Patients having ocular trauma without visual loss.
4. Patient complaining of spontaneous ocular haemorrhage along with history of hypertension, cough, vomiting, etc.

Exclusion Criteria -

1. Recently eye operated patients.
2. Patients with other ocular disease like corneal ulcer, mucopurulent conjunctivitis, viral epidemic kerato conjunctivitis, etc
3. Traumatic patients with visual loss with retinal involvement excluded.
4. Patients with head injury along with fracture of orbit

5. Blood disorder having leukemia, purpura excluded.

- **Subjective parameters:** (Explained by patients)

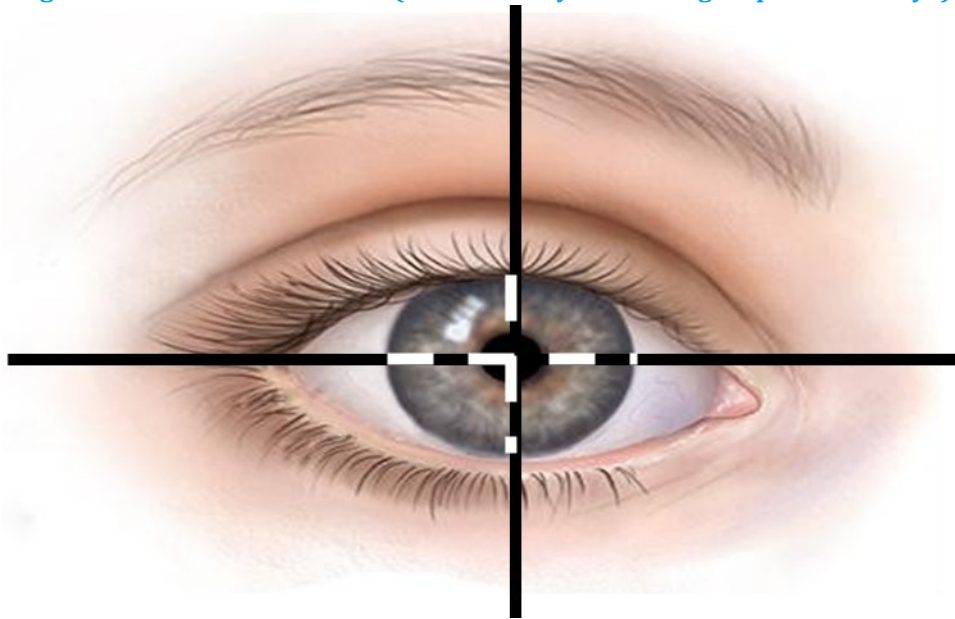
1. Netra Aaraktata (Redness of eye according to colour)

- **Objective Parameters:** (Observed/ Examined by doctor)

1. Netra Aaraktata (Redness of eye according to quadrant)

Parameters for assessment:**Grading and scoring -****Signs and symptoms -****Table No. 1: Netra Aaraktata - (Redness of eye according to colour)**

0 -	Absent	No sub conjunctival haemorrhage
1 -	Mild	Orange red colour of sub conjunctival haemorrhage
2 -	Moderate	Blackish red colour of sub conjunctival haemorrhage
3 -	Severe	Bright red colour of sub Conjunctival haemorrhage

Figure No. 1: Netra Aaraktata - (Redness of eye according to quadrant of eye)**Table No. 2: Netra Aaraktata - (Redness of eye according to quadrant of eye)**

0 -	Absent	No redness/No sub conjunctival haemorrhage
1 -	Mild	Involvement of any 1 quadrant
2 -	Moderate	Involvement of any 2 quadrant
3 -	Severe	Involvement of 3-4 quadrants

Groups of Patients:

Total 68 patients were registered for the study, out of which 5 patients were eliminated as they did not fulfill the inclusion criteria; and 3 patients left the treatment in between the study. Total 60 numbers of patients were selected for study, and randomly divided into two groups.

Group A: (Trial Group)

- 30 Patients were treated with Rasanjana- Madhu Anjana in evening for 15 days.

Group B: (Control Group)

- 30 Patients will be treated with "Ocupol-D" eye ointment in evening for 15 days.

Follow Up:

Follow up will be taken on 0, 5th, 10th and 15th day.

- After completion of the treatment, the patient was asked for the follow up.
- In case of any recurrence of the symptoms, the patients were advised to visit even before the scheduled follow up.

METHODS:**Preparation of Rasanjan-Madhu Anjana:-**

The authenticated raw drug was selected for preparation of Rasanjan.

According to Dalhana -

अंजनमित्यादी । अंजन सौविरांजनं । रसांजनं दारुहरिद्रा क्वाथेन कृत्रिमं ॥

(सू.ड.टि. ३८/४१-४२)

The Rasanjana - Madhu Anjana contain two drug-

1. Rasanjana
2. Madhu

Rasanjan was prepared according to Vidhi (Procedure) given by "Dhalanacharya".

Daruharidra Churna - 1 Part

Jala - 16 part

- First Daruharidra kwatha was made by adding 16 times jala into it then it slowly and constantly heated to reduce 1/8th of kwath.
- Daruhridra Churna + 16 parts of jala reduced to 1/8th Daruharidra kwath reduced to ghanakwath (Rasanjan).
- After that this kwath was filtered through cotton cloth which was folded four times.
- Then this kwath is again boli slowly and constantly upto it turns Ghana(yellowish coloured residue) termed as Rasanjan.
- Then the slakshna paste was formed, capsule shaped vati was made and lastly they were allowed to be dry in shadow.
- Then we filled these vatakas in air tight dry plastic containers and the containers were labelled with name Rasanjan.

OBSERVATIONS AND RESULTS:

Table No. 3: Showing Classification of Patients as per Age Group

Age	Group A	Group B	Total	Percentage
18-28 yrs.	2	2	4	6.67%
29-38 yrs.	3	4	7	11.67%
39-48 yrs.	12	13	25	41.67%
49-60 yrs.	13	11	24	40%

Table No. 4: Showing Classification of Patients as per Sex Difference

Sex	Group-A	Group-B	Total	Percentage
Female	14	12	26	43.33%
Male	16	18	34	56.67%

Table No. 5: Showing Classification of patients as per Socio Economical Status

Economic	Group-A	Group-B	Total	Percentage
Higher	3	2	5	8.33%
Middle	11	15	26	43.33%
Poor	16	13	29	48.33%

Table No. 6: Showing classification of patients as per Occupation

Occupation	Group A	Group B	Total	Percentage
House Workd	6	6	12	20%
Farmer	12	15	27	45%
Travaller	4	3	7	11.67%
Teacher	2	4	6	10%
Student	2	1	3	5%
Labour	4	1	5	8.33%

Table No. 7: Netra-Araktata according to colour wise comparison 60 patients of Arjuna

	Netra Arkatata according to Colour						
	Day-0		Day-15		Relief	ANOVA Bonferronis test	
	Mean score	SD	Mean score	SD		P value	significancy
Group A	2.6	0.5632	1.067	0.4498	58.96	p<0.001	Extreemly significant
Group B	2.433	0.7279	1.1	0.4807	54.78	p<0.001	Extreemly significant

Table No. 8: Netra-Araktata according to quadrant wise comparison 60 patient of Arjuna

	Netra Arkatata according to quadrant						
	Day-0		Day-15		Relief	ANOVA Bonferronis test	
	Mean score	SD	Mean score	SD		P value	significancy
Group A	2.333	0.7581	1.367	0.8087	41.4	p<0.001	Extreemly significant
Group B	2.533	0.6288	1.133	0.5713	55.27	p<0.001	Extreemly significant

Table No. 9: Symptom wise comparison of 60 patient of Arjuna

Symptoms	% Relief	
	Group-A	Group-B
Netra Arakatata according to quadreant	41.40%	55.27%
Netra Arakatata according to colour	58.96%	54.78%

Table No. 10: Comparative effect of bothdrugs on Netra-Arakatata According to Colour

Comparative Netra Arkatata According to Colour				
	Group A	Group B	t Value	Summary
Mean	1.067	1.1	0.2773	Not Significant
SD	0.4498	0.4807		

Table No. 11: Comparative effect of bothdrugs on Netra-Arakatata according to quantrant

Comparative Netra Arkatata according to quadrant				
	Group A	Group B	t Value	Summary
Mean	1.367	1.133	1.291	Not Significant
SD	0.8087	0.5713		

Table No. 12: Comparative Total Score effect of bothdrugs on Netra-Arakatata

Comparative Total Score				
	Group A	Group B	t Value	Summary
Mean	2.5	2.267	0.9249	Not Significant
SD	1.106	0.8277		

DISCUSSION:

Today we are living in highly polluted environment due to the development of the industries. This has also an effect on our lifestyle and dietary habits. Arjuna vyadhi is one of the outcomes of this changing life style and polluted environment. It is commonest defect affecting the eyes which routinely found in ophthalmic OPD.

Now on considering the various statistical data available through the patient that we have conducted the trial we have found following things.

Age: Highest incidence of Arjuna was reported in age group of 39-48 years. i.e. 60%. Usually this group is affected more due to working age group and the environmental factor as hard-dust, foreign bodies.

Gender: In present study, maximum number of patients were male i.e. 56.67% followed by female 43.33%. Highest incidence was observed in male because male are tend to expose more for hard work like farming etc. Similarly in females who are at the work where they tend to expose the field work known increase the risk of Arjuna Vyadhi.

Socio-Economic Status -In the present study most of the patients were from poor class (48.33), followed by (43.33%) lower class and very few were from high class or rich class (6.7%). This data reflects that the people from middle and lower class, they tend to expose to the extreme environment like hard dusty, hot environment than the high class community and hence incidence rate of the disease is higher in those 2 communities.

Occupation: In this study it was clearly found that the person who are doing out door work that is farmer (45%) was more affected than other.

Effect of Treatment on Sign and Symptoms: The effect of therapies was assessed on each sign and symptoms of Arjuna vyadhi. The signs and symptoms were given score before and after treatment and were assessed statistically to see the significance. The effect of both trial group and control group treatment on each symptom was as follows.

Netra Araktata According to Colour: Arakatata is due to vitiation of rakata dosha. As the pitta and rakta are in the relation of ashraya-ashrayi, Vitiatio of pitta causes rakta dusthi. Due to properties of Rasanjan, it is a Rakatasthambhak, Chaksushya so it decreses the arakatata. Also Daruharidra is pittashamak and vranaropak so it relives the netra-arkatata.

Netra Araktata According to Qudrant: Netra Arakatata mostly found in temporal region. There may be two reason one of them is protective effect of nose from nasal area and other is large temoral bulbar conjunctiva. Also it was found that if only one quadrant is involved the arakatata was relief fast as compaired to multi quadrant involvement.

CONCLUSION:

At the end of the study, following conclusions can be drawn on the basis of observations made, results achieved and through discussions in the present context.

- Samhitas have described Rakatadushti is the main cause in the disease Arjuna. This is supported clinically as maximum number of the patients showed pitta-rakata dustikar hetus as the cause.
- Arjuna compared with Subconjunctival haemorrhage on account of its clinical manifestations.
- Incidence of the disease is higher in working age group of 39-48 years with higher prevalence in males than females.
- The drugs chosen for the study are having kashaya rasa, katu vipaka, Ruksha-Tikshna guna and Pitta-rakata Shamaka, Chakshushya properties. So by their virtues, they help in dissolving the Samprapti of Arjuna.
- From the clinical study it was concluded that Rasanjan- Madhu anjana an effective remedy for the management of Arjuna vyadhi.
- By statistical analysis, it is concluded that Rasanjan-Madhu anjan shows significant result in reducing signs and symptoms of Arjuna.
- On comparing both trial groups and controle group regarding overall effect of drugs, we can conclude that Rasanjan-Madhu anjan is equally effective that of Control Group ocupol-D eye ointment.

- No major adverse or side effects were encountered during treatment period.
- It is seen that Local application (Rasanja) is effective. And hence finally conclusion can be made like efficacy of Rasanjan-Madhu anjana equally effective as that the control group Ocupol-D eye ointment.

REFERENCES:

- [1] Ambikadatta Shastri: Sushruta Samhita, Shuklagata Roga Vijnaniyan. Choukhamba Sanskrit Sansthan Varanasi: Vol. II: Reprint 2011: Page no.-27.
- [2] A. K. Khurana: Comprehensive Ophthalmology, Disease of The Conjunctiva. New Age International: 4th Edition reprint 2011: Page no.- 83.
- [3] Dr. J. L. N. Sastry: Dravyaguna Vijnana. Chaukhamba Orientalia: Reprint 2014: Page No.-54.
- [4] Dr Ananta Ram Sharma: Sushruta Samhita, Shklagata- roga-vidnyanam and Rakataabhisandhya Pratishedha Adhya. Choukhamba Surbharati Prakashan Varanasi: Reprint 2004: Page no.-35, 84.
- [5] Dr. G. D. Singhal: Sushrut Samhita, Vedotpattih Adhyaya, Drava-dravya-vidhi Adhyaya. Choukhamba Sanskrit Pratisthan: Vol I: 2nd Edition 2007: Page no.-6.393.
- [6] Dr. G. D. Singhal: Sushrut Samhita, Sarvabhutacinta- sariram Adhyaya. Choukhamba Sanskrit Pratisthan: Vol II: 2nd Edition 2007: Page no.-8.
- [7] Dr. G. D. Singhal: Sushrut Samhita, Aupadravikah, Suklagata – Roga –Vijnaniyan Raktabhisandya-pratishedhan, Kriyakalpah Adhyaya. Choukhamba Sanskrit Pratisthan: Vol III: 2nd Edition 2007: Page no.-1-9, 22,60, 100-115.
- [8] Dr. R. Vidyanath: Asthanga Hrdya, Ascotananjana -Vidhi Adhyaya. Chaukhamba Surbharati Prakashan Varanasi: 1st Edition 2013: Page No 340-341.
- [9] Prof. J. K. Ojha: A Hand book of Dravyaguna, Chaukhamba Sanskrit Pratisthan Delhi 1st Edition 2004: Page No.-81.
- [10] Prof. K. Nishteswar and Dr. Koppula Hemadri: Dravyaguna Vijnana. Chaukhamba Sanskrit Pratisthan Delhi: Reprint 2004: Page No.-8.
- [11] Prof. Priyanvrat Sharma: Charak Samhita, Atha Anapana Vidhi Vaykhyasanama, Matrashitiya Adhyaya. Chaukhamba Orientalia Varanasi: Rerint 2011: Page No.-113,215.

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