

**STUDY THE ROLE OF GHRUTA MADHU ANAJAN IN KUKUNAKA  
WITH SPECIAL REFERENCE TO NEONATAL CONJUNCTIVITIS****Dr. Rahul Ghoti<sup>1\*</sup> and Dr. Rahul H. Gujarathi<sup>2</sup>**<sup>1</sup>P.G. Scholar Dept. of Kaumarabhrutya, B.V.D.U. College of Ayurveda, Pune.<sup>2</sup>Professor and HOD Dept. of Kaumarabhrutya, B.V.D.U. College of Ayurveda, Pune.

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**ABSTRACT**

Kukunaka is an eye disorder occurring in neonates mentioned in various samhitas. According to Vagbhata it is a disease occurring during the time of dentition and is caused by consuming vitiated mother's milk. The clinical features of Kukunaka and neonatal conjunctivitis are quite similar. Hence, they can be correlated. Both are characterized by thick, slimy discharge and inflammation of conjunctiva. It shows other features like excessive lacrimation, itching of eyes, photophobia and reddish discoloration of eyes.

**KEYWORDS:** Kukunaka, Neonatal conjunctivitis, ghruta, madhu.**INTRODUCTION**

Newborn period is the crucial period where these are prone to various vulnerable diseases in this stage. To grow as a healthy child and an healthy individual newborns must be provided careful attention. Similarly Eyes are the most precious and beautiful gift of the nature which plays a vital role in every individual, social development and progress.

Kukunaka is explained as netravartmagatavikara which is tridoshaja and raktajvyadhi particularly seen in the ksheerapa period. All clinical features mentioned in the samhitas are suggestive of some inflammatory or infectious disease of eye of the baby. If we go through the symptomatology explained in classics, in one aspect Kukunaka can be taken as neonatal conjunctivitis.

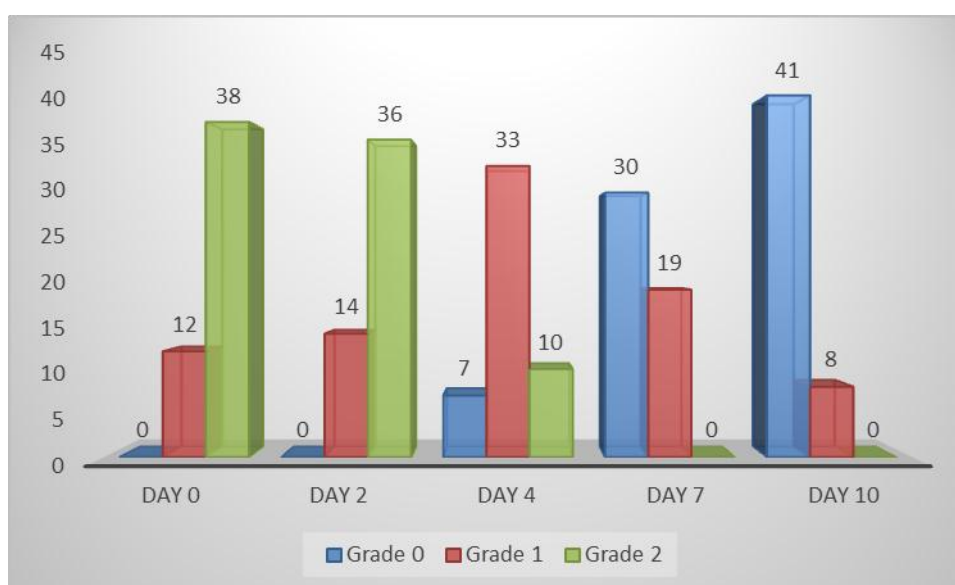
## MATERIALES AND METHODS

This was an informed, consented, open clinical trial. Total 50 neonates were selected to OPD and IPD Bharati Ayurveda Hospital And Research Center, pune for this study Anjana was prepared by mixing fresh ghee (4 drops) and honey (1 drop) and with all aseptic precautions; this fresh mixture was applied on palpebral conjunctiva three times a day. The patients were evaluated at regular intervals on various assessment parameters over a period of 10 days.

## OBSERVATIONS

### TYPE OF DISCHARGE

Type of Discharge	Day 0	Day 2	Day 4	Day 7	Day 10
Grade 0	0	0	7	30	41
Grade 1	12	14	33	19	8
Grade 2	38	36	10	0	0



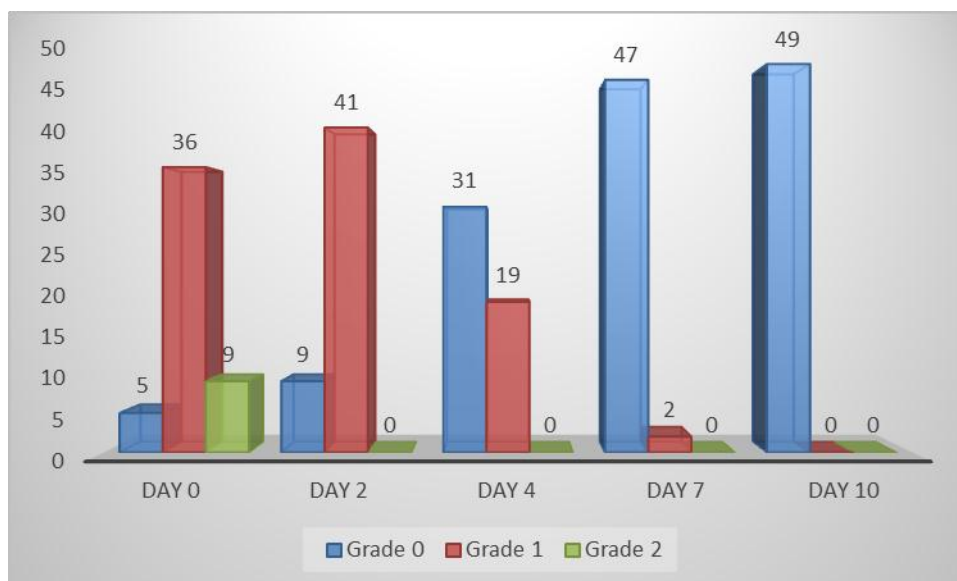
Type of Discharge	Median		Wilcoxon Signed Rank W	P-Value	% Effect	Result
	BT	AT				
	2	0	-5.631 <sup>a</sup>	0.000	82.1	Significant

Since observations are on ordinal scale, we have used Wilcoxon Signed Rank test. From above table we can observe that P-Value is less than 0.05 hence we can conclude that effect observed is significant.

### Color of conjunctiva

Assesment of colour of conjunctiva according to gradation score.

Colour of Conjunctiva	Day 0	Day 2	Day 4	Day 7	Day 10
Grade 0	5	9	31	47	49
Grade 1	36	41	19	2	0
Grade 2	9	0	0	0	0



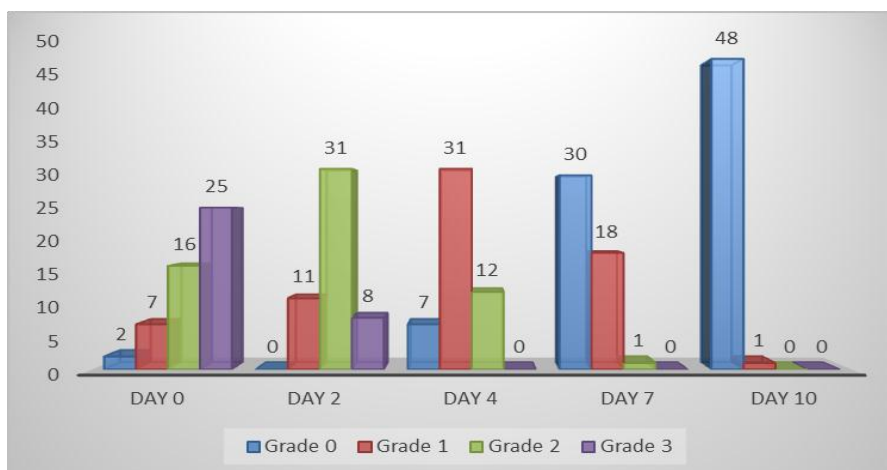
Colour of Conjunctiva	Median		Wilcoxon Signed Rank W	P-Value	% Effect	Result
	BT	AT				
	1	0	-5.599 <sup>a</sup>	0.000	95.6	Significant

Since observations are on ordinal scale, we have used Wilcoxon Signed Rank test. From above table we can observe that P-Value is less than 0.05 hence we can conclude that effect observed is significant.

### VOLUME OF DISCHARGE

Assessment of volume of discharge according to gradation score.

Volume of Discharge	Day 0	Day 2	Day 4	Day 7	Day 10
Grade 0	2	0	7	30	48
Grade 1	7	11	31	18	1
Grade 2	16	31	12	1	0
Grade 3	25	8	0	0	0



Volume of Discharge	Median		Wilcoxon Signed Rank W	P-Value	% Effect	Result
	BT	AT				
	2	0	-5.409 <sup>a</sup>	0.000	87.2	Significant

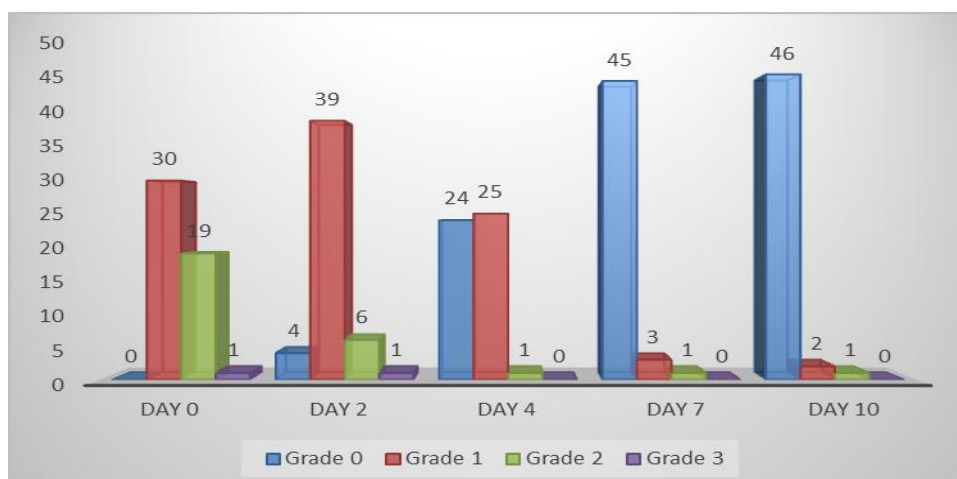
Since observations are on ordinal scale, we have used Wilcoxon Signed Rank test. From above table we can observe that P-Value is less than 0.05 hence we can conclude that effect observed is significant.

### Conjunctiva Involvement Congestion

Assessment of conjunctiva involvement congestion according to gradation score.

Conjunctiva Involvement Congestion	Day 0	Day 2	Day 4	Day 7	Day 10
Grade 0	0	4	24	45	46
Grade 1	30	39	25	3	2
Grade 2	19	6	1	1	1
Grade 3	1	1	0	0	0

Assessment of conjunctiva involvement congestion

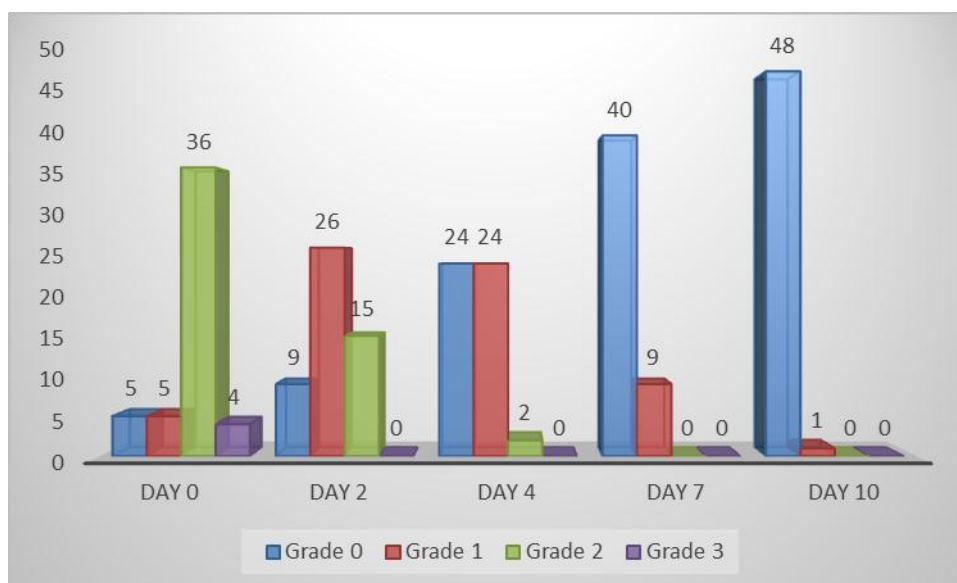


**Assessment of conjunctiva involvement congestion**

Conjunctiva Involvement Congestion	Median		Wilcoxon Signed Rank W	P-Value	% Effect	Result
	BT	AT				
	2	0	-5.631 <sup>a</sup>	0.000	91.7	Significant

**Photophobia****Assessment of photophobia according to gradation**

Photophobia	Day 0	Day 2	Day 4	Day 7	Day 10
Grade 0	5	9	24	40	48
Grade 1	5	26	24	9	1
Grade 2	36	15	2	0	0
Grade 3	4	0	0	0	0



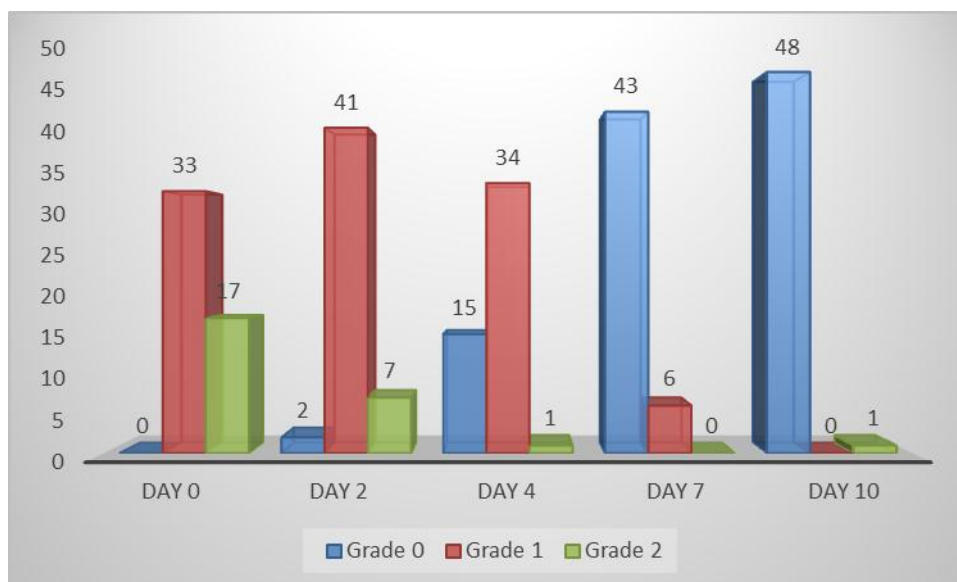
Photophobia	Median		Wilcoxon Signed Rank W	P-Value	% Effect	Result
	BT	AT				
	2	0	-5.849 <sup>a</sup>	0.000	88.8	Significant

Since observations are on ordinal scale, we have used Wilcoxon Signed Rank test. From above table we can observe that P-Value is less than 0.05 hence we can conclude that effect observed is significant.

**Lid Inflammation / Edema**

Assessment of lid inflammation according to gradation score

Lid Inflammation / Edema	Day 0	Day 2	Day 4	Day 7	Day 10
Grade 0	0	2	15	43	48
Grade 1	33	41	34	6	0
Grade 2	17	7	1	0	1



**Graph 23- Assessment of lid inflammation.**

**Assessment of lid inflammation**

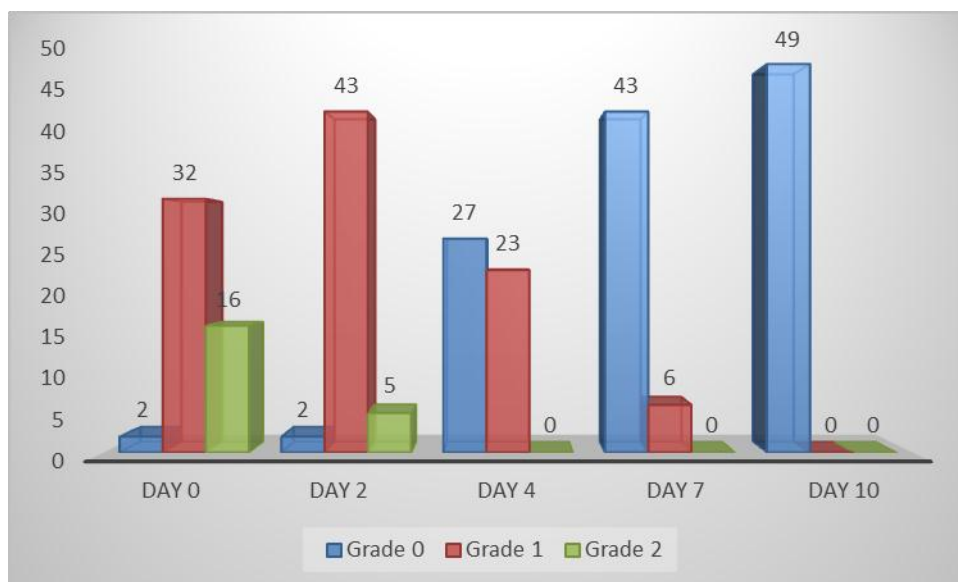
Lid Inflammation / Edema	Median		Wilcoxon Signed Rank W	P-Value	% Effect	Result
	BT	AT				
	1	0	-5.811 <sup>a</sup>	0.000	92.2	Significant

Since observations are on ordinal scale, we have used Wilcoxon Signed Rank test. From above table we can observe that P-Value is less than 0.05 hence we can conclude that effect observed is significant.

**Itching of Eyes**

Assessment of itching of eyes according to gradation score.

Itching of Eyes	Day 0	Day 2	Day 4	Day 7	Day 10
Grade 0	2	2	27	43	49
Grade 1	32	43	23	6	0
Grade 2	16	5	0	0	0



Itching of Eyes	Median		Wilcoxon Signed Rank W	P-Value	% Effect	Result
	BT	AT				
	1	0	-5.529 <sup>a</sup>	0.000	88.2	Significant

Since observations are on ordinal scale, we have used Wilcoxon Signed Rank test. From above table we can observe that P-Value is less than 0.05 hence we can conclude that effect observed is significant.

## DISCUSSION

In the above study it is seen that Gruta Madhuanjana is effective in kukunaka. Symptoms of kukunaka are Netragatastrava, netrashotha, netrakandu, praashashtvaand, netrashol. All these symptoms are aggravated by vitiated breast mother milk. Ghrutamadhu is an Ayurvedic preparation to be used as local application (Anjanachikitsa). In the period of 10 days clinically signs and symptoms of kunaka were significantly reduced. Effect of ghrutamadhuanjan Provided significant relief in this study. No more side effects were observed in patients by ghrutamadhuanjan during the study. Drugs used in formulation are cost-effective and easily available.

## CONCLUSION

The entire review of Ayurvedic as well as modern literature on kukunka and neonatal conjunctivitis revealed that the features of neonatal conjunctivitis are closely related to kukunka. This study has proved that kukunakacan be managed with conservative line of treatment during its initial stages as mentioned in the classics (ayurvedic literatures) and thus can be practiced in the present era with confidence. Overall relief provided by ghrutamadhu was as good as anjan. Trial group drug is as effective. No adverse effects were found after

application of Anjana.ghrutamadhuanjana can be used as conservative line of treatment in kukunaka.

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