

Combined Effect of Azadirachta Indica (*Neem*) Powder with *Goghrita* as Orally and Azadirachta Indica (*Neem*) Oil as Topically on Urticaria

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Abstract—

Background: Pollution, UV lights & excess heat are three major causes of skin problems in India. In Ayurveda, Twak Vikara (Skin Diseases) mentioned in Charaka Samhita, Yogaratnakara, Shushruta Samhita by Acharyas. Shitapitta is commonest skin disorder caused by aggravation of kapha and vayu, together with vitiation of pitta. It can be correlated with Urticaria or Nettle rash or Hives. "Skin rash triggered by reaction to food., medicine environmental factors or other irritants called urticaria.". Skin diseases are one of the leading health problem in developing countries. Despite the high frequency of skin diseases in developing countries have a serious impact on quality of life, causing lost productivity at work discrimination due to disfigurement. *Neem* (*Azadirachta indica*) powder with *Goghrita* as oral and *Neem* (*Azadirachta indica*) oil as topical are selected for their wide spectrum action on urticaria.

Aim: To evaluate the combined effect of *Azadirachta indica* (*Neem*) powder & *Azadirachta indica* (*Neem*) oil in the treatment of urticaria

Materials and Methods: Total 20 patients of urticaria with 4 weeks duration were enrolled and randomly allocated to Group A (Oral *Azadirachta indica* (*Neem*) powder 1gm 3 times daily with *Goghrita* And Topical application of *Azadirachta indica* (*Neem*) oil), Group B (Only Topical application of *Azadirachta indica* (*Neem*) oil). Duration of treatment was considered about 1 month. Skin rash, itching, size of lesion observed at weekly interval.

Results: With the treatment of 4 weeks, Group A showed dramatic improvements in signs and symptoms. Resolution of *Kandu* (Itching), *Toda* (Pricking Pain) and *Daha* (Burning sensation) occurred in about 100% of patients. Whereas 70% of patients having reduction in *Mandala* (Circular spot on skin) and cessation of *Shotha* (Swelling) in 90%. In patients of Group B, *Kandu* and *Daha* reduced in only 60%. Cessation of *Toda* and *Mandala* occurred in 50% whereas *Shotha* reduced in 70%. So combined use of *Azadirachta indica* (*Neem*) powder and *Azadirachta indica* (*Neem*) oil showed significant effect when compared before and after treatment by applying 't' test to parameters, $p < 0.10$.

Conclusion: *Neem* (*Azadirachta indica*) powder with *Goghrita* as orally and *Azadirachta indica* (*Neem*) oil as topically, used in combination were found effective for urticaria.

1. INTRODUCTION

Though Ayurveda is holistic science but it has already proven before thousand years back. Lots of classic remedies mentioned in Ayurveda for chronic and acute diseases along with good life style. According to World Health Organization the prevalence of skin diseases in India is 9% to 13% of total population¹. For instance the WHO'S 2001 reports on global burden of disease indicate that skin diseases were associated with mortality rate². That is why no one can ignore any skin disorder. Due to pollution, ultra violet light, global warming, contaminated water, infection causes skin diseases at a faster pace like Urticaria. Generally urticaria defined as raised, well circumscribed area of erythema which also called as Nettle rash or Hives. Basically urticaria divided into two types as acute and chronic. Along with earlier mentioned causes, food, environmental factors, drug, stress can triggered urticaria. Commonly Antihistamines are the only treatment for urticaria with fateful side effects in modern science.

For that, Ayurveda gives solution on urticaria concluded by signs and symptoms as simulating *Shitapitta*. As *Yogaratnakara*³, *Madhavanidana*, and *Sharnghadhara Samhita* mentioned *Shitapitta* (Urticaria) in detail. *Yogaratnakara* contribute *Nimbpatra Yog*⁴ (*Azadirachta indica* –(*Neem*) powder with *Goghrita*) on urticaria where as *Azadirachta indica* (*Neem*) seed oil⁵ also acts on urticaria as locally. *Azadirachta indica* (*Neem*) having properties⁶ anti-inflammatory, antifungal, antibacterial and antiviral which useful to treat urticaria easily. *Goghrita* along with *Azadirachta indica* powder it also act as *Shukrakara* (Fertility), *Vata-Pitta dosha nashaka*.⁷ The basic aim of this study is to treat urticaria (*Shitapitta*) in scientific way with administration of standard Ayurvedic drugs preparation.

2. AIMS & OBJECTIVES

1. To study the effectiveness of combined therapy of Azadirachta indica (*Neem*) powder & Azadirachta indica (*Neem*) oil in urticaria
2. To study the efficacy of Azadirachta indica(*Neem*) powder and Azadirachta indica(*Neem*) oil used in Urticaria.
3. To study detail cause of Urticaria in adults.
4. To study various concepts of *Shitapitta* regarding causes & treatments in Ayurveda.

3. MATERIAL & METHODOLOGY

It is simple, random group study with sample size 20. It was conducted on patients who were suffering from urticaria. Samples were selected randomly from Department of *Kayachikitsa* of *Shri Sant Eknath Rughnalya, Shevgaon*.

Inclusion Criteria

1. Patients of age between 25 years to 50 years included.
2. Patients who were suffering from urticaria with absence of any major illness.
3. Patients were selected irrespective of religion , occupation.
4. Patients having urticaria since 1 to 2 months

Exclusion Criteria

1. Unconscious , deaf and dumb patients.
2. Pregnant and lactating women
3. Patients who have sterility
4. Patients having major immunological illness.

Methodology

Thoroughly history had been taken regarding to sign and symptoms of patients. Selected patients were drawn into 2 groups e.g. Group A & B.

Group A -10 patients were treated with Azadirachta indica (*Neem*) powder with *Goghrita* as orally & Azadirachta indica (*Neem*) oil as topically.

Group B – Whereas other 10 patients were administered only topical application with Azadirachta indica(*Neem*) oil.

All treatment were done daily for 1 month. Assessment was done with the follow up of every 7th day.

Drug Administration

Table 1: Drug Administration

Sr. No.	Topic	Group A	Group B
1	Drug	Azadirachta indica (<i>Neem</i>) powder with <i>Goghrita</i> orally + Azadirachta indica (<i>Neem</i>) oil locally	Only Azadirachta indica (<i>Neem</i>) oil locally
2	Dose	Azadirachta indica (<i>Neem</i>) powder – 1Gm 3Times Daily with 2Gm <i>Goghrita</i> in each dose	Azadirachta indica (<i>Neem</i>) Oil- As Needed on skin lesion- Two times daily
		Azadirachta indica (<i>Neem</i>) Oil- As Needed on skin lesion- Two times daily	
3	Duration	1Month	1Month

Follow Up

There were five follow up performed for case study which included 1st (Base line), 2nd (7th day), 3rd (14th day), 4th (21st day) & 5th (28th day) follow ups.

4. ASSESSMENT CRITERIA

Table 2: Gradation for signs and symptoms

Sr. No.	Parameters	Normal	Mild	Moderate	Severe
1	<i>Kandu</i> (Itching)	0	1	2	3
2	<i>Toda</i> (Pricking Pain)	0	1	2	3
3	<i>Daha</i> (Burning sensation)	0	1	2	3
4	<i>Shoatha</i> (Swelling)	0	1	2	3
5.	<i>Mandala</i> (Lesion on skin)	0	1	2	3

5. OBSERVATIONS AND RESULTS

Before started the treatment, all patients of both groups had all signs and symptoms (mild to severe) which mentioned in Table no .2 in different manner like much or less. After treatment there was decreased in signs and symptoms of both groups had been seen.

Table 3: Number of patients showing sings & symptoms before treatment(BT) and after treatment(AT)

	Group A		Group B	
	B.T.	A.T.	B.T.	A.T.
<i>Kandu</i>	10	0	10	4
<i>Toda</i>	10	0	10	5
<i>Shoatha</i>	10	1	10	3
<i>Daha</i>	10	0	10	4
<i>Mandala</i>	10	3	10	5

Results

Table 4: Group wise improvements after treatments

Gr.	No. of patient	Parameters				
		Kandu	Toda	Shohta	Daha	Mandala
A	10	10 (100%)	10 (100%)	09 (90%)	10 (100%)	07 (70%)
B	10	06 (60%)	05 (50%)	07 (70%)	06 (60%)	05 (50%)

6. STATISTICAL ANALYSIS

Paired 't' and unpaired 't' test is applied for analysis.

Table 5: Findings in Group A after t/t by paired 't' test

	Mean	$\sum(x-x)^2$	Std. Dev.	Std. Error	t_9	Result
Kandu	1.7	6.1	0.2744	0.0868	19.59	As p<0.001 treatment is highly significant
Toda	1.6	6.4	0.2811	0.0889	18	
Shohta	1.5	8.5	0.3239	0.1024	14.64	
Daha	1.8	3.6	0.2108	0.0667	26.98	
Mandala	1.4	10.4	0.3583	0.1133	12.35	

Table 6: Findings in Group B after t/t by paired 't' test

	Mean	$\sum(x-x)^2$	Std. Dev.	Std. Error	t_9	Result
Kandu	0.7	4.1	0.2249	0.0712	9.33	As p<0.001 treatment is highly significant
Toda	0.5	2.5	0.1757	0.0556	8.99	
Shohta	0.6	2.4	0.1721	0.0544	11.02	
Daha	0.8	5.6	0.2629	0.0831	9.62	
Mandala	0.5	2.5	0.1757	0.0556	8.99	

Table 7: Comparison of Group A&B after treatment by unpaired 't' test

	Std. Dev.	Std. Error	t_{18}	Result
Kandu	2.3637	0.4727	2.11	As p<0.10 treatment is significant
Toda	2.6687	0.5337	2.06	
Shohta	1.2581	0.2516	3.57	
Daha	2.2085	0.4417	2.26	
Mandala	3.3638	0.4364	2.06	

For all symptoms p is less than 0.10, difference is significant. Treatment of Group A is more effective than Group B, hence Azadirachta indica (*Neem*) powder with *Goghrita* as orally and Azadirachta indica (*Neem*) oil as locally is more effective on urticaria than only Azadirachta indica (*Neem*) oil as locally.

7. DISCUSSION

Skin is the largest organ of human body. Ayurveda also mentions it as protective covering formed during *dhatuparinaman* (conversion of *dhatu*s). Acharya Charaka while enumerating layers, nomenclated on the basis of *twakvikara* (skin disorders). In Ayurveda, skin disorders

described along with their signs, symptoms and miraculous easy treatments. *Shitapitta* caused due to vitiation of *Kapha* and *Pitta* dosha along with predominance of *Vata* dosha. That means contribution of *tridosha* is seen in *samprapti* (pathophysiology) of *shitapitta*. In short, exposures to cold breeze, *vata* and *kapha* doshas are aggravated and in turn they get vitiated with *pitta dosha*. Further, they spread all over the body and lodge in the external surface of the body (beneath the skin) and produce reddish rashes with intense itching and pricking sensation. *Shodhan* (removing *Doshas* from body by means of relevant *Panchakarma*), *Shaman* (subsiding *Doshas* in situ with appropriate medicine), Ayurvedic herbal formulation as systemic as well as locally for the treatment of *Shitapitta* are mentioned in Ayurvedic *samhitas*.

According to modern science⁸, urticaria is one of the most common skin disease having mixed pathophysiology of which autoimmunity, hypersensitivity responsible for recurrence and obstacle in cure of disease. So for the purpose, best remedies is Ayurvedic treatment.

Yogaratkara mentioned *Neembapatra* (*Azadirachta indica*) *yoga* with *Goghrita* on *shitapitta* also *Neem* seed oil can be useful in any skin disorder. *Azadirachta indica* (*Neem*) have medicinal properties like *Shothaghna* (anti-inflammatory), *Twagadoshahara* (relief from skin disorder), *Kriminashaka* (wormicidal, antiseptic), *Vishanashaka* (anti-toxic), *Tridhoshahara* (eliminate vitiated dosha), *Kushthahara* (anti-leprosy). Along with these *Azadirachta indica* seed oil has active principle *Margasine*, *Nimbidine*, *Nimbin*, *Nimbidol* act as earlier mentioned properties. When we use *Goghrita* along with *Azadirachta indica* powder it also acts as *Vata-Pitta dosha nashaka* which increases effectiveness of treatment. So by using this treatment breakdown of pathophysiology of *Shitapitta* takes place as suppression of vitiated *Tridhosha* in *twak* (skin) done due to drug administration. Also there occurs improvement in healing with topical oil application.

With the treatment of 4 weeks, Group A showed dramatic improvements in signs and symptoms. Resolution of *Kandu* (itching), *Toda* (pricking pain) and *Daha* (burning sensation) occurred in about 100% of patients. Whereas 70% of patients having reduction in *Mandala* (circular spot on skin) and cessation of *Shohta* (swelling) in 90%.

In patients of Group B, *Kandu* and *Daha* reduced in only 60%. Cessation of *Toda* and *Mandala* occurred in 50% whereas *Shohta* reduced in 70%.

8. CONCLUSION

In *Shitapitta* or urticaria, Group A, treated with *Azadirachta indica* (*Neem*) powder with *Goghrita* as orally & *Azadirachta indica* (*Neem*) oil as topically. There was reduction in symptoms such as *Kandu*, *Toda*, *Shohta*, *Daha*, *Mandala*. In Group B patients there was also inhibition of above mentioned symptoms with topical application of *Azadirachta indica* (*Neem*) oil as topically.

Neem) oil. In Group A And B, respective treatment proved to effective. But when outcomes compared with each other (Between Group A and B), there is significant difference found. So Azadirachta indica(*Neem*) powder with *Goghrita* as orally and Azadirachta indica(*Neem*) oil as topically, used in combination found more effective for urticaria.

REFERENCES

- [1] whqlibdoc.who.int/hq/2005/WHO_FCH_CAH_05.12_eng.pdf (Accessed Date & Time 05/04/2016 at 2.30 P.M.)
- [2] www.who.int/healthinfo/statistics/GlobalDALYmethods_2000_2011.pdf (Accessed Date & Time 06/04/2016 at 5.25P.M.)
- [3] Laxmipatishastri Yogaratnakara,Uttrarardha,Shitpittaudarda kothanidanam /1-4 Chokhamba sanskrit sansthan Varanasi publication, Reprint edition 2005, pp-40
- [4] Laxmipatishastri Yogaratnakara,Uttrarardha,Shitpittadi chikitsa - 9 Chokhamba sanskrit sansthan Varanasi publication, Reprint edition 2005, pp-236
- [5] Prof. Krisnachandra Chunekar, Bhavaprakashnighantu, Guduchyadivarga, Neem, Choukhamba Bharati Akadami Publication, Reprint edition 2013, pp-316
- [6] Prof. Krisnachandra Chunekar, Bhavaprakashnighantu, Guduchyadivarga, Neem, Choukhamba Bharati Akadami Publication, Reprint edition 2013, pp-315
- [7] Lt. Dr. Ganesh Krishna Garde, Sarth Vagbhata, Sutrashtan 5/37-39, Anamol Publication, Pune, Reprint edition 2007, pp- 20
- [8] Davidson's Principles and practice of medicine, The skin and systemic disease, Urticaria, ELBS publication Reprint 18th edition 1992, pp- 923-924