



## THE ROLE OF NIMBA PATRA KALKA IN MANAGEMENT OF VICHARCHIKA W. S. R. TO CONTACT DERMATITIS-A CASE STUDY

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### ABSTRACT

All dermatological disorders are coming under the term *kushtha* as per Ayurvedic text, *kushtha* is divided into two categories viz. *Mahakushtha* and *Kshudrakushtha*. '*kushnati iti kutsatham*', '*Tvachah kurvanthi vaivarnya dushtah kushthashrti tat*'. The word *kushtha* etiologically means any condition which causes of skin. Allergic Contact Dermatitis is a common type of skin disorder seen among patients. Allergic contact dermatitis occurs when the skin comes in contact with an allergen that the skin is sensitive or allergic. Allergic contact dermatitis occurs more commonly in adults. The Acharyas have classified *kushtha* based on the symptoms into 18 types out of which 7 are considered as *Mahakushtha* and 11 are considered as *kshudrakushtha*. Among the *kshudrakushtha* – *Vicharchika* with symptoms of *kandu*, *pitika*, *shyavata*, *Bahustrav* may be considered as contact dermatitis. As per Ayurvedic literature *Nimba Rasa* (Taste) is *Tikta*, *Kashaya*, *Guna* (Qualities) are *Laghu*, *Ruksha*, *Veerya* (Potency) is *Sheeta*, *Vipaka* (Post-digestion effect) is *Katu* and *Karma* (Pharmacological activity) are *Kaphaghna*, *Pittaghna karma*. *Nimbapatra* is *shothghna*, *twagadosahar*, *krimighna*, *kushthahar*, *vranashodhak* and *vranaropak*. **Aim and Objective:** To know the efficacy of *Nimbapatra kalka* in *Vicharchika* w. s. r to contact dematitis. **Method and Methodology:** Case Report - A 40-year-old male patient with complaints of (Kandu) Itching, Shyavata, Redness, Pitikauttpatti over Right hand since 5 days and History of application of Attar on hand. **Chikitsa:** local application of *Nimbapatrakalka* was done for 5 days. **Result:** Significant changes occurs after local application of *Nimbapatrakalka* i. e Reduction in(Kandu) Itching, Reduction in Redness, Reduction in Pitika.

**KEYWORD:** *Kushtha*, *Vicharchika*, Contact dermitities, *Nimbapatrakalka*.

### INTRODUCTION

The National health and nutrition Examination survey (NHANES) estimated the prevalence of contact dermatitis to be 13.6 cases per 1000 population, using physical examination by dermatologist of selected sample of patient.

#### Etymology of the word "Vicharchika"

Thus, *Vicharchika* is derived from "*Charcha Adhyane*" by adding prefix, *Vee*; to it. The word *Adhyane* has two syllables viz. *Adhi* and *Ayne*. *Adhi* means above and *Ayne* means spread out. Thus it reads as "*Visheshate Charchate Adhi Eyate Anaya Sakandu Kshudrapidika Swarupena Charmani Upariti Vicharchika*", which means *Kshudrapidika* spreads with *Kandu* elevated on the surface of the skin is termed as *Vicharchika*.

#### Classical Definition of *Vicharchika*

Acc to Charaka Samhita

It is a skin ailment where in eruptions over the skin appear with dark pigmentation, itching and with a profuse discharge.

#### Acc to Sushruta Samhita

It is a condition in which the skin has linear rough lesions with intense itching and pain but when the same itching, burning and pain are experienced in the feet alone, it is termed as "*vipadika*".

• Acc to Acharya Vagbhatta

The blackish eruptions with intense itching and watery discharge i. e. *Lasikadhya* is referred to as *vicharchika*.

• Acc to Bhela samhita

Blackish red deep rooted lesions i. e. *Mamseropachita* accompanied with oozing is called *vicharchika*.

• Kashyapa in *kushthdhyaya* narrates *vicharchika* as blackish brown pustuler eruptions with intense itching and pain.

• Acc to Harita samhita multiple pinhead sized eruption with ulceration and itching is called *vicharchika*.

- From the above discussion it seems that the charka has described wet type of *vicharchika* while sushruta has given the description of dry type of *vicharchika*.

#### **Nidan panchak of Vicharchika**

The etiological factors of *vicharchika* are different according to different authors, because the dominant dosha acc to sushruta is *Pitta*, where as according to charka and vagbhata dominance of *kapha* is there. According to charaka the *kushtha* only caused by single *dosha*, Because of *sapta dravyas sangraha (vata, pitta, kapha and twak, rakta, mamsa and ambu)*, eighteen types of *kushthas* are produced. Hence, the etiological factors of *kushthas* are the etiological factors of *vicharchika*

The Nidan of *Vicharchika* May Be Classified Into. 3 groupes: 1. *Ahara* 2. *Vihara* 3. *Achara*.

#### **Ahara Hetu Viruddha ahara**

1. Intake of chilchim fish with milk.
2. Intake of *mulaka* and *lasuna* with *ksheera*.
3. Use of *mulaka* with *guda*.
4. Excessive use of alcohol with milk.
5. Intake of food mostly containing *yavaka, uddalaka* along with *ksheera, dadhi, and takra, kola, kulatha, masha, atasi, kusumbha* and *sneha*.
6. Continuous intake of *gramya, audaka* and *anupa mamsa* with *ksheera*.
7. Use of fish, citrus and milk together.

#### **Mithya Ahara**

1. Excessive use of *navanna, dadhi, matsya, amla* and *lavana*.
2. excessive use of *tila, ksheera* and *guda*.
3. Excessive oleation.
4. Continuous and excessive use of *madhu, phanita*.
5. Intake of food during indigestion.
6. *Asatmya ahara*.
7. *Adhyashana*.
8. Intake of polluted water.

#### **Vihara hetu Mithya vihara**

1. To do physical exercise and to take sunbath after heavy meals.
2. To perform sexual intercourse during indigestion.
3. To do exercise or to perform sexual intercourse after *snehapana* and *vamana*.
4. Sudden changes from cold to heat or heat to cold.
5. Entering into cold water immediately after one is affected with fear, exhaustion and sunlight.

#### **Vega-Vidharana**

1. Suppression of the urge of emesis.
2. Withholding of the natural urges i. e. *Mutra* and *purisha vega* etc.

#### **Panchakarm Apcharana**

1. *Panchkarmani kriyamani nishida sevanam*.
2. Improper administration of *snehapana* therapy.

#### **Achara Hetu**

1. Acts insulting bramhanas, teachers and other respectable persons.
2. Indulgence in sinful activities.
3. Use of money or material acquired by unfair means.

#### **Purvarupa**

There is no any explanation regarding the premonitory sign and symptoms of *vicharchika* in the text, but as it is classified as one of the *kshudra kushtha roga*, so one can take the premonitory syndrome of the *kushtha vyadhi* can be considered as *purvarupa of vicharchika*. *purvarupa avastha* is sign of *doshadushya sammurcchana* stage under the fourth *kriyakala*.

Purvarupa- Purvarupa described in details as follows.

1. *Swedadhikya* -atisweda is due to obstruction of *swedavah srotasa* and it is also a symptom of vitiation of *rakta* when vitiated *dosha* get settle in *rakta, sveda* is produced. *pittavrutta samana vayu* also causes *swedadhikya*. Exaggerated sweating predisposes to maceration of skin, growth of fungus, secondary dermatitis or contact eczema.
2. *Asweda* -There is no sweating due to *swedavah srotovarodha* obstruction is due to *kaphavrutta samana*. Due to *asvedana, tvakaa parushya* takes place with cracking and dryness.
3. *Parushya* -*Tvaka parushya* means *kathinyata* felt in *tvaka* or absence of *chikkanata*. Generally the skin is little bit oily. *Tvakasneha* is mala of *majjadhatu* but increases the *khara guna ofvayu* and decreases the *snigdha* and *dravaguna* of *kapha* leads to *tvaka parushya*.
4. *Atishhhlakshnata* - Excessive secretion of *tvaka sneha* leads to *atishlakshnata*. Excessive secretion of sebaceous glands leads to greasy and oily shining skin. This condition favours the growth of organism and also aggravated by air pollution etc.
5. *Vaivarnya* - Generally every person has a typical skin colour, except the previous original appearance called *vaivarnya* of skin.
6. *Kandu* - *Kandu* is chief complaint of *Vicharchika* and also felt as *Purvarupa*. *Kandu* is mainly due to *kapha dushti*.
7. *Toda* - *Toda* means pricking sensation in the body. It is a type of pain due to *vata prakopa*.
8. *Suptata* - *Suptata* means *sparshahani* due to *vata or kapha dushti*.

#### **Rupa**

According to Acharya Charaka the rupa of *Vicharchika* are lesion with itching, boil, darkness, profuse oozing. Acharya Vagbhata, Madhava and Bhavamishra have described same rupa as Acharya Charaka. Only Acharya Vagbhata has mentioned *lasikadhya* instead of *bahusrava*.

Here rupa are described in detail as.

1. *Kandu* - *Kandu* is a main complaint in *Vicharchika* and described by most of Acharya. *Kandu* is a sensation in which patient feels to rub the skin and is commonly

regarded as annoying. According to Acharya Charaka it is caused by vitiated *kapha* and *pittavikara*. It is also considered in *nanatmaja vikara of vata*.

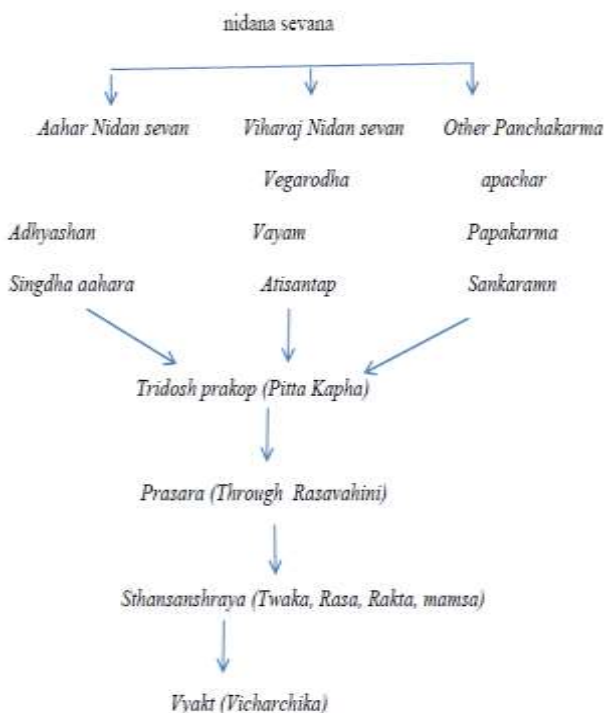
2. *Pitika*-It can be compared with small boil, papule or pustule. Acharya Charaka said that vitiated pitta and rakta cause inflammation in *tvaka* with redness.

3. *Vaivarnya* means dark brown or dark coloured. The *pitika of vaivarnya* colour in *Vicharchika* has been mentioned by Acharya Charaka, Vagbhara, Madhava and Bhavaprakasha. Eczema in early stage being with red skin due to dilatation of blood vessels with oedema, papules, vesicles etc. And at the later stage skin lesions become dark and lichenified. *Shyava (vaivarnya)*

4. *Strava* means flowing or straming. Symptom of *srava* is mentioned by all Acharya except Sushruta because he has explained dry type of *Strava Vicharchika*. For profuse discharge Acharya Charaka used the word *bahus rava*, while Acharyavagbhara said *lasikadhya*.

### Samprapti of Vicharchika

• In classics there is no any description regarding the *samprapti of vicharchika*. But being a variety of *kushtha* the common *samprapti of kushtha* should be considered as *samprapti of vicharchika*.



### SAMPRAPTI GHATAKA

*Doshas* : Tridosha.

*Dushya* : Twak, Rakta, Mansa, Lasika(ambu).

*Srotas* : Rasa, Rakta, mansa & Udakavaha.

*Agni* : Jatharagni & Dhatwagnimandya.

*Srotodusti* : Sang & vimargagamana Sanchara.

*Tiryaga sira Adhishtana* : Twaka.

*Rogamarga* : Bahya.

*Swabhava* : Chirkari.

### Upadrava

Upadrava of *Vicharchika* are the same as that of *kushtha*. *prasaravana*, *angabheda*, sequestration of body parts, thirst, fever, diarrhoea, burning sensation, debility, anorexia and indigestion above all mismanaged diseases created *krumi* which harms to *sira*, *snayu*, *tvaka* and *tarunasthi*.

### Contact Dermatitis

Contact dermatitis is an inflammatory eczematous skin disease. It is caused by chemicals or metal ions that exert toxic effects without inducing a T-cell response (contact irritants) or by small reactive chemicals that modify proteins and induce innate and adaptive immune responses (contact allergens).

Contact dermatitis is divided into irritant contact dermatitis and allergic contact dermatitis. Irritant contact dermatitis is a nonspecific response of the skin to direct chemical damage that releases mediators of inflammation predominantly from epidermal cells while allergic contact dermatitis is a delayed (type 4) hypersensitivity reaction to exogenous contact antigens. Immunological responses are due to the interaction of cytokines and T cells. In photo contact, allergic dermatitis lesions are confined to sun-exposed areas even though the allergen is in contact with covered areas.

### Role of Application of Nimbapatra kalka lepa in Vicharchika

Neem (*Azadirachta indica*) is a member of the Meliaceae family. *Nimba* is a widely used drug in folklore and Ayurveda due to its chemical constituents like alkaloids, glycosides, saponins etc are active components principles of the plant having defensive mechanism against different pathogens. *Nimba* has antibacterial, antifungal, antiparasitic and antiviral properties. As the global scenario is now changing towards the use of nontoxic plant products having traditional medicinal use, thus the development modern evidence based Ayurveda drugs like *Neem* should be emphasized for the control of various infections.

### Nimba properties as per Ayurvedic literature

As per ayurvedic literature *Nimba* Rasa (Taste) is *Tikta*, *Kashaya*, *Guna* (Qualities) are *Laghu*, *Ruksha*, *Veerya* (Potency) is *Sheeta*, *Vipaka* (Post-digestion effect) is *Katu* and *Karma* (Pharmacological activity) are *Kaphaghna*, *Pittaghna karma*. *Nimbapatra* is *shothghna*, *twagadoshahar*, *krimighna*, *kushthahar*, *vranashodhak* and *vranaropak*. *Nimbatwak* is *graahi*, *jwaraghna*, *twagadoshahar* & *krimighna*. *Nimba* fruit is *kushtha*, *Gulma*, *krimi* and *pramehanashak*, *Nimba* tail is *vranashodhak*, *vranaropak*, *vaathar*, *kushthaghna* and *krimighna*.

### Active Compounds of Azadirachta indica L. (Nimba)

*Azadirachta indica* L. (*Nimba*) shows therapeutics role in health management due to rich source of various types of ingredients like *nimbolinin*, *nimbin*, *nimbidin*, *nimbidol*,

sodium nimbinat, gedunin, salannin, & quercetin. Leaves contain ingredients such as nimbin, nimbanene, 6-desacetylnimbinene, nimbandiol, nimbolide, ascorbic acid, n-hexacosanol and amino acid, 7-desacetyl-7-benzoylazadiradione, 7-desacetyl-7-benzoylgedunin, 17-hydroxyazadiradione, and nimbiol *Azadirachta indica* A. Juss. (Nimba) Fruit and Seeds are source of several bioactive triterpenoids.

### AIMS AND OBJECTIVES

To know the efficacy of *Nimbapatra kalka* in *Vicharchika w. s. r* to contact dermatitis.

### DISCUSSION

This statement is true even in case of *Vicharchika*, where classics depict four main features viz. *kandu* (itching), *Pidika* (eruptions), *Shyava* (blackish discoloration), and *Bahu srava* (excessive oozing) in *Vicharchika*. Maharshi *Sushruta* has described clinical aspects of dry *Eczema* (*Sushka Vicharchika*) with the symptoms of acute itching, pain and marked linings. These types of presentations are due to instigated *Vata* only. *Asthanga Hridaya* illustrates the nature of *Srava* (oozing) as 'Lasikadhya' while *Indu* demonstrates *Lasikadhya* as 'Jala Pravah' i. e. watery discharge. On the base of these similarities, *Vicharchika* may be defined as a clinical existent. In *Vicharchika* the lesion is covered with *Shyava* colored *Pidika* (eruption) and profuse itching or *ruja* (pain). *Vicharchika* may develop anywhere in the body and it may be either wet or dry. *Vicharchika* usually correlated with *Eczema*. It is very similar to the *Eczema* and *Dermatitis* as per classical standard. The eruption in *eczema* catches and causes vesiculation and plastering of skin. The first symptom is erythema or reddening of the skin. These vesicles break down and oozing from the affected area of the skin. If the condition carry on, skin become thickened and scales may come out. Specially at the site of lesion, there is blockage of sweat glands creates loss of sweating (*Aswedanam*) or excessive sweating (*Atiswedanam*) due to continue irritation given by patient were reported in the symptoms of *Kushtha*. Primary area of aetiopathogenesis, are *Twak* (skin), *Rakta* (blood and Lymph), *Mamsa* (deep cutaneous tissue) and *Lasika* (sweat gland apparatus). *Contact Dermatitis* is a dominant problem in the skin diseases. Contempt of great advance in dermatology and the advent of powerful antibiotic and antifungal as well as steroids, *Shamana* is one of the therapies espoused by *Acharyas*. *Vicharchika* refers to a medical condition characterized by inflammation and irritation of skin.

### Mechanism of Action of Active Compounds

*Nimba* (*Azadirachta indica*) plants parts shows antimicrobial role through inhibitory effect on microbial growth/potentiality of cell wall breakdown. *Azadirachtin*, a complex tetranortriterpenoid limonoid present in seeds, is the key constituent responsible for both antifeedant and toxic effects in insects Results suggest that the ethanol extract of *Nimba* leaves showed in vitro antibacterial activity against both *Staphylococcus aureus*

and *MRSA* with greatest zones of inhibition noted at 100% concentration. *Nimba* plays role as free radical scavenging properties due to rich source of antioxidant. Therapeutic Implications of *Nimba* and Its Various Ingredients in Health Management. *Nimb* Clinical studies with the dried *Neem* leaf extract indicated its effectiveness to cure *eczema* and *scabies*. Lotion derived from *Neem* leaf, when locally applied, can cure these dermatological diseases within 3–4 days in acute stage or a fortnight in chronic case. A paste prepared with *Neem* and *turmeric* was found to be effective in the treatment of *eczema* in nearly 814 people. In 97% of cases, the paste was found to cure *eczema* within 3–15 days of treatment without any adverse effect.

### SUMMARY AND CONCLUSION

The first part of research work deals with introduction followed by conceptual study. It is divided into two parts.

1. In the first part detailed description of disease review *Vicharchika* (ancient and Modern) is given. Under the heading of modern disease review, details about the *Vicharchika/contact dermatitis* its cause, symptoms was explained. In *Ayurvedic* disease review details regarding *Vicharchika* was elaborated. Historical review, *purvarupa*, *rupa*, *samprapti* were compiled.
2. In the second part detailed description of *Nimba* (Ancient and Modern) is given.

Ancient review of *Nimba*: In this Part detailed description of its historical background, synonyms, origins, types, test, properties, *rasa*, *guna*, *virya*, *vipaka*, *karma*, uses, and dosage is given in detail. Modern review of *Neem*: Screening of the modern literature was done as per different research paper and journals so as to have an idea regarding the view of various scholars pertaining to *Nimba/Neem*.

### CONCLUSION

Conclusion of this study entitled "The Role of *Nimba patra kalka* in management of *vicharchika w. s. r* to Contact dermatitis-A Case Study". is as follows: Skin is one of the most presentable organ of the human body. skin disorders affect physical level, psychological level as well. *Ayurvedic* herbs is effective in treating skin disorders. *Ayurveda* says *pitta prakop* causes skin disorders. *Vata*, *pitta* and *Kapha* are the three factors which cause and govern the functions of the body. *Vicharchika* can be correlated with *Contact Dermatitis* which is ever increasing ailment and globally affecting an enormous number of people. *Vicharchika* is a condition under which patient suffer with the severe painful itching, skin eruptions, dryness of skin which can be correlated with *Contact Dermatitis*. *Nimba Rasa* is *Tikta*, *Kashaya*, *Guna* are *Laghu*, *Ruksha*, *Veerya* is *Sheeta*, *Vipaka* is *Katu* and *Karma* are *Kaphaghna*, *Pittaghna karma*. *Nimbapatra* is *shothghna*, *twagadoshahar*, *krimighna*, *kushthahar*, *vranashodhak* and *vranaropak*. Significant changes occurs after local



application of *Nimbapatrakalka* i. e Reduction in(Kandu) Itching, Reduction in Redness.

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