

COMPARATIVE STUDY OF LEPROSY WITH SPECIAL REFERENCE TO DHATUGAT AVASTHA IN KUSHTHA

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ABSTRACT

Ayurveda is *upaveda* of *atharvaveda*. It originated and is practiced in India for more than 5000 years. Leprosy accounts for great deal of physical and mental as well as economic loss, sometimes resulting in a handicap. *Kushtha* is mentioned in *ayurveda*. *Mahakushtha* is significantly characterized by *dhatugat avastha*. The *lakshan* of *dhatugat avastha* of *kushtha* explained in our *ayurvedic* classic can be compared to modern day leprosy Government of India started national leprosy program; *kushtha* is used as a synonym for leprosy in lay mans term and also by the government. Thus this study has been under taken to find similarity if any between leprosy and *dhatugat avastha* in *kushtha*. The present study helps us to understand comparison between leprosy and *dhatugata avastha* in *kushtha*.

Keywords: Leprosy, *Kushtha*, *Dhatugat avastha*

INTRODUCTION

Leprosy or Hansen's disease is chronic non fatal infectious disease caused by *Mycobacterium leprae* (*M. leprae*)¹. The organism mainly affects the cooler parts of body such as skin, mouth, respiratory tract, eye, peripheral nerves, superficial lymph nodes, and testis². In addition, in a group of patients other organs viz. liver, spleen, muscles, bones, and joints may get involved. Leprosy is a slow communicable disease and the incubation period between first exposure and appearance of sign of

disease varies from 2 to 20 years (average about 3 years).

Leprosy is of five types:-

Indeterminate leprosy

Tuberculoid leprosy

Lepromatous leprosy

Borderline leprosy

Neuritic or poly neuritic leprosy²

Ayurvedic classics have considered each type of *kushtha* to be a *tridoshaja* manifestation.

Kushtha is one of the *vyaddhi* of *raktavaha*

strotas. Kushtha types are mahakushtha and kshudrakushtha. Tridosha and four dushyas viz twaka, rakta, mamsa, lasika are involved in samprapti of kushtha and thus form the sap-tadravyasangraha of kushtha. Mahakushtha is significantly characterized by dhatugat avastha. Dhatugata avastha is a condition in which there is involvement of uttarottar dhatu, viz. rasa, rakta, mamsa, meda, asthi, majja, and shukra. The dhatugat avastha in kushtha is most dreadful condition, which is seen only in mahakushtha. Due to the subsequent involvement of dhatus disease prognosis shifts towards asadhyata.³

According to Dalhana the word maha of mahakushtha is ability to penetrate in uttarottar dhatu (sequential- from rasa to shukra) and kshudrakushtha differs by not having the ability to penetrate the uttarottar dhatu.⁴

Material and Method: -

Materials

Sample size:- 60 Patients. (Dr.Bandorwala Leprosy Centre, Kondawa, Pune)

Method

Study type

Observational

Analytical

Cross sectional

Study design

60 diagnosed patients of leprosy were selected by simple randomized sampling technique by lottery method.

Written consent was taken from each patient prior to case taking.

Detail case of patients was taken with the help of specially designed CRF (Case Record Form)

Lakshana of dhatugata avastha was studied in these patients.

Leprosy and dhatugata avastha in kushtha was compared as per case record form.

Observations were made and analysis of results was done.

Conclusion was drawn from the basis of observations and results.

Inclusion criteria

- Clinically diagnosed case of leprosy.
- Age group 18- 60 years of age.
- Gender- Both males and female, irrespective of religion, occupation and socio-economical status.

Exclusion criteria

- Other skin diseases viz. Scabies, eczema, vitiligo, pemphigus,
- Patients of known chronic disease like HIV, Tuberculosis, Cancer, and skin Tuberculosis and skin cancer patients.
- Pregnant woman.

Criteria for assessment

- 3 cardinal signs of leprosy

1. Hypopigmentation/ Erythematous skin lesions.

2. Sensory impairment

3. Peripheral nerve thickening.

- Types of leprosy = 5

1. Intermediate leprosy.

2. Tuberculoid leprosy.

3. Lepromatous leprosy

4. Borderline leprosy

5. Neuritic/ poly neuritic leprosy⁵

- Dhatugata avastha in kushtha. Reference (Su.Ni. 5/ 25 to 30)

1. Tvak:- Sparshahani, Swedana, Kandu, Vaivarnya, Rukshata.

2. Rakta :-Tvakaswap, Romharsha, Swedasyaabhivartana, Kandu, Vipuyaka.

3. *Mamsa* :- Bahulya, Vakrashosha, Karkashyam, Pidakoudgamana, Toda, Sphota, Sthiratva.
4. *Meda* :- Daurgandha, Updehasya, Puya, Krimi utpatti, Gatranam bhedanam.
5. *Asthi-majja*:- Nasabhanga, Kshiraga, Kshatecha, Krimi sambhava, Swaropaghata.
6. *Shukra*:- Kaunya, Gatikshaya anganam, Sambheda, Kshatasarpanam.

Table 1: Division of patients according to type of leprosy

Type of leprosy	No of patients	Percentage
Lepromatous leprosy	42	70%
Borderline leprosy	15	25%
Intermediate leprosy	1	1.66%
Tuberculoid leprosy	1	1.66%
Neuritic leprosy	1	1.66%
Total	60	100%

In this study maximum number of patients i.e. 70% were lepromatous leprosy, 25% patients

were borderline type of leprosy, 1.66% patients were intermediate type of the of leprosy.

Table 2: Division of patients according to *dhatugata avastha* observed.

<i>Dhatugata avastha</i> observed	No.of patients	Percentage
<i>Medo dhatugata avastha</i>	31	51.66%
<i>Shukra dhatugata avastha</i>	20	33.33%
<i>Asthi-majja dhatugata avastha</i>	8	13.33%
<i>Mamsa dhatugata avastha</i>	1	1.66%
Total	60	100%

In this study maximum no of patients were of *medo dhatugata avastha* i.e. 51.66%, 33.33% patients were of *shukra dhatu avastha*,

13.33% patients were of *asthi majja dhatugata avastha* while 1.66% patients were of *mamsa dhatugata avastha*.

Table 3: Division of patients according to *medo dhatugata avastha*

Type of leprosy in <i>medo dhatugata avastha</i>	No of patients	Percentage
Borderline leprosy	15	48.39%
Lepromatous leprosy	14	45.17%
Tuberculoid leprosy	1	3.22%
Neuritic leprosy	1	3.22%
Intermediate leprosy	0	0
Total	31	100%

This study total 31 number of patients reached the *medo dhatugata avastha* of which 48.39% patients were borderline type leprosy, 45.17% patients were lepromatous type of leprosy,

3.22% patients were tuberculoid type of leprosy and 3.22% patients were neuritic type of leprosy.

Table 4: Division of patients according to *asthi-majjagata avastha*

Type of leprosy in <i>asthi majja dhatugata avastha</i>	No of patients	Percentage
Lepromatous leprosy	8	100%
Borderline leprosy	0	0
Indeterminate leprosy	0	0
Tuberculoid leprosy	0	0
Neuritic leprosy	0	0
Total	8	100%

In *asthi majja dhatugata avastha* total 8 patients i.e. 100% belonged to be of lepromatous leprosy.

Table 5: Division of patients according to *shukra dhatugata avastha*

Type of leprosy in <i>shukra dhatugata avastha</i>	No of patients	Percentage
Lepromatous leprosy	20	100%
Borderline leprosy	0	0
Indeterminate leprosy	0	0
Tuberculoid leprosy	0	0
Neuritic leprosy	0	0
Total	20	100%

In *shukra dhatugata avastha* total 20 patients i.e. 100% were found to be of lepromatous leprosy.

Table 6: Division of patients according to *mamsa dhatugata avastha*

Type of leprosy in <i>mamsa dhatugata avastha</i>	No. of patients	Percentage
Tuberculoid leprosy	1	100%
Lepromatous leprosy	0	0
Borderline leprosy	0	0
Indeterminate leprosy	0	0
Neuritic leprosy	0	0
Total	1	100%

In *mamsa dhatugata avastha* total 100% patients belonged to tuberculoid type of leprosy.

Table 7: Division of patients according to *lakshana of mamsa dhatugata avastha*

<i>Mamsa dhatugata avastha lakshanas</i>	No of patients	Percentage
<i>Bahulya</i>	1	100%
<i>Vakrashosha</i>	0	0
<i>Karkashtha</i>	0	0
<i>Pidakoudgamana</i>	0	0
<i>Toda</i>	0	0
<i>Sphota</i>	0	0
<i>Sthirtva</i>	0	0

It is evident from study that, in *mamsa dhatugata avastha* 1 number of patient i.e. 100% were of *bahulya lakshana*.

Table 8: Division of patients according to *lakshanas* of *medo dhatugata avastha*

<i>Medo dhatugata avastha</i>	No.of patients	Percentage
<i>Dourgandhyam updehascha</i>	25	80.64%
<i>Gatranam bhedanam</i>	9	19.36%
<i>Puya</i>	0	0
<i>Krimi utpatti</i>	0	0

It is evident that maximum number of patients 25 (80.64%) were of *daurgandyam updehasya lakshana*, and 9 (19.36%) patients were of *gatranam bhedanam lakshana*.

Table 9: Division of patients according to *lakshanas* of *asthi majja dhatugata avastha*

<i>Asthi-majja dhatugata avastha</i>	No.of patients	Percentage
<i>Nasabhanga</i>	8	100%
<i>Akshiraga</i>	6	75%
<i>Kshatecha krimi sambhava</i>	0	0
<i>Swaropaghata</i>	0	0

It is evident from the study that maximum numbers of patients were of *nasabhanga lakshana* and 6 (75%) number of patients of *akshiraga lakshana*.

Table 10: Division of patients according to *lakshanas* of *shukra dhatugata avastha*

<i>Shukra dhatugata avastha</i>	No.of patients	Percentage
<i>Kaunya</i>	20	100%
<i>Gatikshaya</i>	18	90%
<i>Anganam sambbheda</i>	0	0
<i>Kshatasarpanam</i>	0	0

It is evident from the study that maximum 20(100%) number of patients were of *kaunya lakshana* and 18 (90%) number of patients were of *gatikshaya lakshana*.

Leprosy has again emerged as a threatening problem to our society. (Ref.TOI 26 Jan 2015) *Kushtha* is one of the *vyaddhi* of *raktavaha strotas*. (Ref. Cha. Vi. 5/22) It is primarily of 2 types.

1. *Mahakushtha*
2. *Kshudrakushtha* References (Waghbhat nidan 14/7)

Mahakushtha is significantly characterized by *dhatugata avastha*. *Kushtha* is always *tridoshaj* in origin and dominance of particular *dosha* leads to specific symptom complex. The *lakshana* of *dhatugata avastha* of *kushtha* ex-

plained in our *ayurvedic* classics can be compared to modern day Leprosy. Thus this study has been undertaken to find similarity if any between leprosy and *dhatugata avastha* in *kushtha*.

60 diagnosed patients of leprosy were selected. *Lakshanas* of *dhatugata avastha* in *kushtha* were studied in these patients. Observations were done and findings were recorded as stated above.

DISCUSSION

Leprosy and *dhatugata avastha* in *kushtha* were compared as per case record form. Fi-

nally *mamasa dhatugata avastha* can be correlated to tuberculoid type of leprosy, *medo dhatugata avastha* can be correlated to borderline type of leprosy, *asthi majja dhatugata avastha* and *shukra dhatugata avastha* can be correlated to lepromatous type of leprosy.

Thus, the comparative study of leprosy with special reference to *dhatugata avastha* in *kushtha* stands validated with above specific observation.

CONCLUSION

On the basis of review of literature and observations made by this study, which was conducted on randomly selected 60 diagnosed patients of leprosy, the following conclusion can be drawn.

It can be concluded that out of 60 selected patients, the incidence of *medo dhatugata avastha* is found to be more than other *dhatugata avastha* followed by *shukra dhatugata avastha*, *asthi majja dhatugata avastha* and *mamsa dhatugata avastha*.

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