

ANATOMICAL CHANGES OCCURRING IN TWACHA SHARIR DUE TO DADRU W.S.R. TO RINGWORM

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ABSTRACT

In present era, there are evidences of many skin diseases. In *Samhitas* these diseases are described under the common heading of “*Kushtha*”. There are major two common types of *Kushtha* as *Mahakushtha* and *Kshudrakushtha*. *Dadru* is one of the *kshudraKushtha* with *Pittakapha* predominance. *Dadru* presents clinically with the features of *Kandu*, *Raga*, *Pidika*, *Udgata mandala* etc. which are very close to features of Ringworm like pruritis, erythema, vesicle or pustule etc.

Here the article will evaluate anatomical changes occurring in *Twacha* due to *Dadru Vyadhi*, so as to verify its correlation with the ringworm. This may help the physician, in treating the ringworm using ayurvedic treatment.

Keywords: *Dadru*, Ringworm, *Kushtha*, *Twacha Sharir*.

INTRODUCTION

Ayurveda is an ancient science. ‘*Ayu*’ means life and ‘*Veda*’ means science of life. Before treating any diseases, there is necessity of having knowledge about the entities of body. From the anatomical point of view, *Aacharyas* have mentioned many structures such as *Peshi*, *Asthi*, *Sira*, *Snayu*, *Koshtang*, *Dhamani*, *Strosas*, *Twacha* etc. *Twacha* (skin) is one of the sense organ among five *Dnyanendriyas*. It occupies all the *Indriyas* as well as whole body. Different *Aacharyas* have mentioned the

various layers of *Twacha*. *Aacharya Sushruta*^[1] have described 7 layers whereas *Aacharya Charak* and *Vagbhat* have mentioned 6 layers of *Twacha*^{[2],[3]}.

There are mainly two common types of *Kushtha* as, ‘*Mahakushtha*’ and ‘*Kshudrakushtha*’. Among the various *Kushtha* described by *Aacharyas*. “*Dadru*” is the types of which signs and symptoms cited by *Aacharyas* resembles with the Ringworm as per modern science. Ringworm is most common fungal infection.

Once the skin disease has developed it resists getting cured causing physical, emotional and social embarrassment. So in our present study, we have made sincere efforts to evaluate anatomical changes occurring in *Twacha* due to *Dadru Vyadhi*, so as to verify its correlation with the Ringworm. This may help the physician, in treating the Ringworm using *Ayurvedic* therapy.

Aims and Objectives-

- To evaluate anatomical changes occurring in *Twacha Sharir* due to *Dadru*.
- To verify the correlation between *Dadru* and Ringworm.

Materials and methods-

1. References have been collected from Ayurvedic *Samhitas* and textbooks, modern textbooks online published studies.

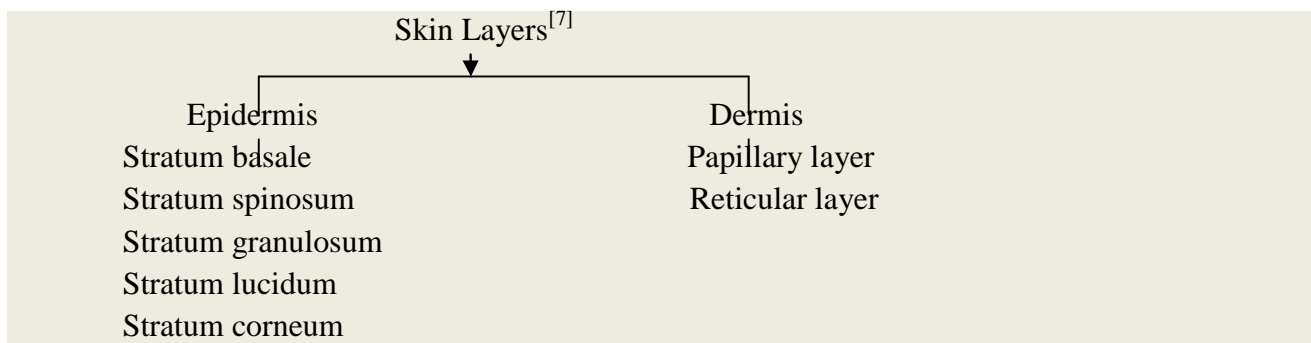
2. All data is compiled, analysed and discussed.

Twak utpatti -

Aacharya Sushrut have explained *Twak utpatti* in *Sharirasthan* as, when *Shukra* combines with *Shonit* and is charged with *Atma* various organs develops and *Garbha* also start developing. During this development skin layers form in the same manner as layers form and deposited on the surface of milk^[4] According to *Aacharya* Charak *Twacha utpatti* takes in 6th month of intrauterine life^[5]. According to modern science it is in the 3 to 5th month of intrauterine life^[6].

Skin

Skin is the protective organ of the body. It reflects the health of the individual. It is also target organ for many infections. It serves as a protective barrier that prevents internal tissues from exposure to trauma, UV radiation, temperature extremes, toxins and bacteria.



Kushtha

It is the condition in which skin produce discoloration and if not treated properly then ultimately results in disfigurement. According to *Ayurveda*, there are two major types of *Kushtha*

1. *Mahakushtha*.

2. *Kshudrakushtha*.

There are mainly 7 subtypes of *Mahakushtha* and 11 subtypes of *Kshudrakushtha*^{[8],[9]}.

Dadru

According to Charaka *Dadru* belongs to the category of *Kshudrakushtha* and according to

Sushruta and Vagbhat belongs to *Mahakushtha*^{[10],[11],[12]}. It is accompanied with itching, redness and pimples. It is circular in shape and elevated on the border^{[13],[14],[15]}. According to Charaka and Vagbhata, it is developed by vitiated *Pitta* and *Kapha dosha* dominance and according to Sushruta it is *Kapha Dosha* dominance^{[16],[17],[18]}.

Ringworm

It is commonest of all fungal infections. Ringworm also known as *Tinea* or *Dermatophytosis* or *Mycosis*^[19]. It is extremely common in our country due to its tropical climate. Cardinal symptoms of Ringworm are itching, erythema, pustule/vesicle/spongiosis, burning sensation, dryness and circular elevated lesions^[20].

According to site of affection ringworm is classified as follows^[21]

- *Tinea capitis* - Scalp
- *Tinea corporis* - Body
- *Tinea versicolor* - Neck
- *Tinea barbae* - Bearded
- *Tinea faciei* - Face
- *Tinea cruris* - Groin and buttock
- *Tinea manuum* - Hand
- *Tinea pedis* - Feet
- *Tinea unguium* - Nails.

Histopathological of Appearance of Ringworm

Ringworm infection may display a wide range of microscopic features. Epidermis includes presence of neutrophils; compact orthokeratosis; presence of 'Sandwich Sign'. Epidermis show spongiosis, rarely intraepidermal pus-

ules; chronic cases show variable acanthosis^[22].

Acharya Ghanekar has compared the *Twacha star* with the skin layers as per modern science as given below^[23].

- Avabhasini star :- Stratum corneum
- Lohita star :- Stratum lucidum
- Shweta star :- Stratum granulosum
- Tamra star :- Malpighian layer
- Vedini star :- Papillary layer
- Rohini star :- Reticular layer
- Mansdhara :- Subcutaneous layer.

DISCUSSION

With the help of literary study of *Ayurvedic Samhitas* regarding *Twacha Sharir* w.s.r. to *Dadru* and literary and histopathological study of skin with respect to ringworm we can make following discussion.

- Among the 7 *twacha star* described by Sushruta, the *Dadru* occurs in 4th *star* (layer) i.e. *tamra* and Charak also described in 4th *star*^{[24],[25]}
- According to modern science, histopathological study of Ringworm reveals that, there is involvement of epidermis layer.
- *Acharya* Ghanekar have given the citation regarding the resemblance of *Tamra star* (layer) with the malpighian layer of epidermis.
- Most of the symptoms of ringworm described as per modern science are similar with the *Dadru*.

CONCLUSION

Hence, we can conclude that, *Dadru* occurring in the *Tamra star* (layer) of *Twacha* can be

correlated with the Ringworm as per modern science.

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