

REVIEW ON ROUTE OF DRUG ADMINISTRATION IN AYURVEDA

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Abstract:

In Ayurveda, Choice for route and time of drug administration is very essential for achieving success in acute and chronic diseases. Route of drug administration is selected for its better and quick absorption. Following the ancient drug administration system many new drug delivery systems have also been developed to provide a new approach to medical science. Different route of administration will have different site of action. So, the appropriate route of administration is very much important to obtain maximum therapeutic effect.

Keywords: Ayurveda, Route of drug administration, Therapeutic effect, Absorption.

INTRODUCTION:

Maintaining the positive health and cure of a disease are the aims of Ayurveda. It can be achieved by following Dinacharya (daily regimen), Rutucharya (seasonal regimen) and Sadvrutta (good conduct) helps to maintain homeostasis of body elements like Dosha, Dhatu and Mala (different components proposed by Ayurveda). Improper application of these principles disturbs the homeostasis leading to the manifestation of diseases.

To cure a disease a proper route to be selected through which a drug can be administered. In Ayurveda, Choice for route and time of drug administration is very essential for achieving success in acute and chronic diseases. Route of drug administration is selected for its better and quick absorption. Following the ancient drug administration system many new drug delivery systems have also been developed to provide a new approach to medical science. Different route of administration will have different site of action. So, the appropriate route of administration is very much important to obtain maximum therapeutic effect.

To highlight its role in treatment, there is a necessity to analyse this concept which is the need of the hour. With the intention of practically validating this concept will be elaborating different route of drug administration which is being mentioned in different Ayurveda texts.

OBJECTIVE OF THE STUDY:

1. The Route of drug administration in Ayurveda is also known as Ausadha Pradana Marga. to review the word ausadha pradana marga.
2. To review the routes of drug administration in Ayurveda.
3. To elaborate different procedure done through different route of drug administration in Ayurveda.

Methodology:

Source of Data:

1. Literature review on route of drug administration in Ayurveda, the data will be taken from Brihatrayees.
2. The data of Different routes of drug administration in Ayurveda will be collected from Brihatrayees and Ayurveda concerned books, journals.

LITERATURE REVIEW:

As route of drug administration in Ayurveda also known as ausadha pradana marga, so topic starts with the word “Ausadha”.

AUSADHA- The word Aushadha is named differently by different authors attributed to different meanings based on different context. The term Aushadha means, the tool/drug/measure which is used to eradicate/ cure/ bring down the diseases. With due importance to Aushadha among the chatuspadas (bhishak, Aushadha, rogi and upstatha), various synonyms of the term Aushadha are provided in our classics. As, these terms will be frequently used by the vaidays while dealing with treatment of diseases.

Irrespective of the differences they carry in their literary meanings, all of them in the present context mean therapeutic devices employed for the treatment of diseases.

Qualities of Aushadha: The medicine which is potent by nature, fortified further by soaking it in the swarasa, made easily digestible, endowed with pleasant taste, smell etc, administered at proper time, in the mild dose and with the steady mind is sure to act like a nectar to the patient.¹

MARGA-

Derivation:

कल्पद्रुमः :

पुं, (माग्यते सुंस्क्रियते पादे न मृर्ते गमनायास्क्रिष्यते इतत वा । मागय वा मृग + + घञ् ।) पन्ाः

अमरकोशः

समानार्थकः अयन, वर्त्यन्, मागय, अध्वन्, पतर्न्, पदवी, सूतत, सरति

Reference of Shareera margas in Ayurveda:

Acharya Charaka discussed about Mala marga of shareera. 2 in adhobhaga of shareera, 7 in sira pradesha, Lomakupa almost all over the body.

When mala vridhhi takes place in the body through these Mala marga dushita mala expelled out of the body.²

Acharya Chakrapani dutta has further explained that, In Adhomarga 2 chidras are there, those are mutra marga and guda marga.

In siras 7 chidras are there, namely 2 srotas(karna), 2 nasa puta, 2 chakshu(akshi), 1 mukha. Total 7.

Swedamukha is nothing but lomakupas here.

These are malayana which have been explained here.³

AKSHI MARGA

Akshi which is also known as chakshu. It's one among the panchaindriya. One among the malayana as well. Located in siras.

चक्षुस्तेजोमयुं – chakshu is agni mahabhuta pradhana organ in our body. Sthana of alochaka pitta. Akshi is responsible for vision or drishti. In sristi utpatti krama we have seen, it derives from trividha ahamkara.

Refernces in Ayurveda:

1. Akshi is one among the panchaindriya adhistana. These is responsible for darshana which is chakshu indriya buddhi.⁴
2. Chakshu is one among the pancha indriya adhistana.⁵

3. Susruthacharya has explained it as one among the pratyanga. ⁶
4. Netra's diameter has been explained here. 1 anguli pramana equals to the length of thumb's Madhya bhaga of a person. Based on this measurement 2 angula pramana is the measurement of netra inside the netra budbuda. Akshigolaka measurement is 2 ½ angula in length and width, which is looks like go stanakara and made by prithwi adi pancha mahabhuta. ⁷
5. In netra budbuda the pancha bhoutika compositions are told, the mamsa part created by prithwi mahabhuta, rakta created by agni mahabhuta, vayu creates the Krishna bhaga of it, jala creates the white part and ashru marga created by akasha mahabhuta. ⁸
6. Just like dristi visharad Videha has explained about netra, in the same manner susruthacharya has explained about netra and its different part. Netra's height's 1/3rd part is Krishna mandala and Krishna mandala's 1/7th part is dristi.
- In further shloka he has explained different parts of netra i.e., 5 mandalas, 6 sandhis, 6 patalas. ⁹

Procedure which are done in this marga:

Vagbhatacharya has explained 94 chakshu rogas and susruthacharya has given 76 varieties of akshi roga.

In classics to treat akshi rogas and also to prevent chakshu roga, medicines are given through akshi marga. as it will have direct interaction of drug with the target site. Different procedures are being explained to administer drug through akshi marga like Seka, Aschotana, Pindi, Bidalaka, Tarpana, Putapaka, Anjana. ^{10,11,12,13,14}

NASA MARGA

Introduction: Nasika is responsible for the sensation of smell or ghrana. It's one among the pancha gyanendriya. Also, one among mala ayana.

Since nose is the gateway or dwara of the shiras, it is highly effective in curing a number of diseases pertaining to the shiras, if it is performed systematically.

Ancient era nose is an important drug delivery route. There are various references found in Ayurvedic text which indicate that this route is used for delivering drug to local and for the systemic action of drug. Nasya is one of the important Panchakarma which is routinely practices by Ayurvedic physician. It is used for prevention and treatment of various diseases.

समानार्थक / synonyms: घ्राणि, गन्धवहा, घोर्णा, नासा, नातसका

References in Ayurveda:

1. Nasika is one among the pancha indriya adhisthana. It is responsible for ghrana which is one among the pancha indriya buddhi. ¹⁵
2. Susruthacharya explained it as one among the pratyangas. ¹⁶
3. 22nd chapter of Uttara tantra of susrutha Samhita is named as नासागतरोगतवज्ञानीयाध्यायः. Different nasagata rogas have been explained in that chapter.
4. 23rd chapter of susrutha Samhita Uttara sthana is named as नासागतरोगप्रततषेधाध्यायः. Different yogas which are suitable for nasagata rogas have been explained in that chapter.
5. while explaining pramana of different parts of the body, charakacharya has explained about the measurement of nasika, which is chatur angula pramana. ¹⁷
6. Nasya karma is very much beneficial for shiro roga. Sira's dwara is nasa. Through nasa marga ausadha can be given to cure shiro gata rogas. ^{18,19}
7. Astanga hridaya has mentioned Nasa is the one among sthana for udana vata. ²⁰

Procedure which is done in this marga:

NASYA

1. Nasyakarma is a process wherein the drug (can be in the form of swarasa, churna etc.) or drug which is processed in Sneha or is administered through the nostrils. ²¹
2. Charakacharya in his sutra sthana 2nd chapter (3,4,5th shloka), vimana sthana 8th chapter (154th shloka) have given list of drugs for shirovirechana purpose.

3. Susruthacharya in his sutra sthana 39th chapter have mentioned list of drugs used for shirovirechana purpose.
4. Vagbhatacharya in his sutrasthana 15th chapter mentioned drugs to be used for nasya purpose. These shows that nasa marga is one among the ausadha pradana marga.

KARNA MARGA

Karna is one among the pancha indriya. Also, one among the malayana. Karna marga is akasha mahabhuta pradhana. As vata is made up of akasha and vayu mahabhuta and in karna akasha mahabhuta in dominant state. So karna is more vulnerable to vataja rogas like shoola, ksheda, ninada, badhirya.

समानार्थक / Synonyms: कर्णिय, शब्दग्रह, श्रोत्र, श्रुत, श्रवस्

References in Ayurveda:

1. One among the pancha indriya adhisthana is karna. Its responsible for srotra, which is srotrendriya buddhi. ²²
2. Susruthacharya has given Pramana of karna have been explained here, which is 4 angula in pramana. ²³
3. Charakacharya has explained about pramana of karna which is 4 angula length. ²⁴
4. Karna vyadah is of two-fold purpose according to susruthacharya i.e., Raksha purpose and abhushana purpose. ²⁵

Procedure which is done in this marga:

karna is more vulnerable to vataja rogas like shoola, ksheda, ninada, badhirya. In all these cases snehana and swedana will be ideal line of treatment. So ausadhas can be given through karna marga to cure karna gata rogas. Karna Tarpana, Karna dhoopana, Karna prakshalana are the evidence that medicine can be administered through karna marga. ^{26,27,28,29}

MUKHA MARGA

Asya or mukha marga is one among the malayana. Asya marga is also one among the known ausadha pradana marga. Almost all the ausadhas are given through mukha marga. all the ausadha kalpanas are formulated to be administered through mukha or asya marga.

Also, to have topical action few ausadhis are given through mukha marga or asya marga.

Jihwa or Rasanendriya is situated in Asya/Mukha. which is one among the pancha indriya. Which is jala mahabhuta pradhana.

समानार्थक / Synonyms: वक्त्र, आस्य, वदन, तुण्ड, आनन, लपन, मुखवयवः, ग्रीवा, नातसका, अधरोष्ठमात्रम्, ओष्ठाधोभागः, कपोलः, दन्तः, तालुः

References in Ayurveda:

1. Mukha is one among the anuyantra according to Vagbhatacharya. ³⁰
2. According to Charakacharya asya is 5 anguli pramana. ³¹
3. According to dalhanacharya Vistara mukha pramana is 4 angula. ³²

Procedure which is done in this marga:

Through mukha marga all the oral medication is being given. Other than that, Gandusha, Kavala, Mukha lepa is being done. ³³

MUTRA MARGA:

Mutra marga comprises of two words i.e., Mutra and Marga. Marga we have discussed earlier. Mutra is one among the Trimala. So, the pathway through which the mutra is being expelled out is known as Mutra Marga.

समानार्थक / Synonyms: मूत्र, प्रस्राव

Procedure is being done in this marga:

1. For mutramarga visodhana purpose, malati pushpa vrintagra pramana yukta manadala sastra is used.³⁴

2 UTTARA BASTI

The basti which is given/administered through pushpa netra is called as Uttara basti. it's given through Uttara marga i.e., yoni marga or mutra marga.³⁵

It's also known as Uttara basti because it is srestha guna sampanna.

Basti netra should be pushed only 4 angula length in apatya or yoni marga and 2 angula length in mutra marga.

In kanya whose age is less than 12 years, only 1 angula length to be administered. The anguli pramana should be the stree's anguli pramana.³⁶

GUDDA MARGA: Guda is moola of purishavaha srotas. It is one among the Bahirmukhsrotas and also considered as one among the karmedriya. Charakacharya has mentioned Guda as one among Kosthangas.

References in Ayurveda:

1. Total length of Guda is 4 ½ angula. These are sphincter situated inside the Guda placed above the other at a distance of 1 ½ angula from each other and are named as Pravahani, Visarjini, Samvarni.
2. Pureeshadhara kala is related to Guda and it is moola of pureeshavaha srotas.
3. According to Charakacharya it has 2 parts Uttara Guda and Adhora Guda.
4. Guda derived from Matruja Bhava.

Procedure done in this marga: As Guda is situated at adhobhaga of the shareera, it is one among the Adhithana for vata. Apana vata situated in this region. So, to tackle vata vyadhi, ausadha prayoga is done through this marga. procedure which is done frequently is Basti, Guda prakshalana, Guda pichu etc.

TWAK:

It is present almost all over the body. The main function of this marga is to expel out sweda which is one among the trimala. Twak mainly covered by Romakupa which is srotomoola for swedavaha srotas. Twak has seven layers according to Susruthacharya.

Procedure done on this marga: abhyanga, utsadana, udwartana, utgharshana

DISCUSSION:

A) Difference between Marga, Patha, Dik: According to Shabdakalpa druma Dik means Vyaptirahita sthana means stating the direction. Patha is Rasta means telling the routes. Marga is anugata eshana means showing the direction as well as telling the routes in detail. So, a marga is a stating a route from starting point to end point in detail.

B) Mala margas can be Ausadha pradana Marga?

In Ayurveda classics there is no direct reference of Ausadha pradana Marga, so question arises which are to be taken as Ausadha Pradana Marga. While discussing the topic of Ausadha Pradana Marga, we get reference of Malashayas in classics. So malashyas are nothing but the margas through which the Malas are being expelled out from the body. Mala here can be taken here as vriddha mala, as well as Vriddha dosha. So, when we through a marga any unwanted substance of our body can be taken out, so in similar fashion to deliver something(ausadha) inside a body we can select a similar route. So, mala margas can be utilised as Ausadha pradana Marga. Also, if we observe through all the malashyas different varieties of procedure can be done for different therapeutic achievement. So, Malashyasa can be considered as Ausadha pradana margas.

C) Reachability of Margas:

The concept of drug delivery plays an important role in any system of medicine. In Ayurveda also it plays a major role. In Ayurveda concept and its application plays a major role in Chikitsa. How well we can understand a concept and how better we can implement in Chikitsa, it will fetch results accordingly. So, understanding the Ausadha pradana Marga is need of an hour. While understanding this concept question arises where it will reach when we administer a medicine through a Marga? where is the reachability of margas. With few examples we can understand it not just acts locally but also it is acting at far site.

1. Pada abhyanga and Chakshu: While discussing about benefits of Pada abhyanga, there is a quotation saying Pada abhyanga is chaksushya.³⁷ Now automatically question arises how by doing pada abhyanga it shows action on eyes. Logical explanation could be presence of Siras in pada which is directly connected to eyes or chakshu. Similarly, according to Charkacharya, paadatra dharana has chaksushya effects shows that pada is directly connected to Chakshu.³⁸

2. Charakacharya in first chapter of Siddhi sthana has explained the reachability of the basti,³⁹ by explaining how basti can reach in different location like shakha, kostha, marmas, angas etc. as we know Basti is being given through Guda marga, so by administering basti through marga it can reach to certain different location like Shakha, Kostha, Marmas etc. so its clearly shows that administering basti through the guda marga has wide kind of reachability.

3. In another context of Charakacharya explained regarding reachability of basti. In that context he has mentioned how Basti first eliminates Vata, Pitta, Kapha respectively from their Aashaya.⁴² Shows that from Guda Marga there are accessibility to Aashaya of Vata, Pitta, Kapha.

4. Dronapushpi swarasa is used as Nasya in Kamala. As we know Kamala is rakta pradoshaja vikara. Rakta pradoshaja vikaras originates in the Yakrut and Pliha. So, through nasa marga we can directly reach to Yukrut and Pliha. It shows the reachability of Nasa marga.

5. Pakshaghata is one among the vata roga. Susruthacharya in Vatavyadhi chikitsa adhyaya mentioned Nasya is onbe among the treatment. Nasya procedure is done through Nasa marga. So, it shows that through Nasa Marga we can reach till the Sakha, Urdhwabhaga, Adhobhaga of the Shareera.

6. Nasahi shirosha dwaram, so this famous quotation itself shows that nasa marga is the gateway for the shiras.

CONCLUSION: Ausadha Pradana Marga is a unique concept of Ayurveda. There are no direct references of Ausadha Pradana Marga in Brihatrayees and Laghutrayee. As per discussion we can take Malaayanas as different Ausadha Pradana marga as through them different therapeutical procedures are done to achieve different sort of therapeutical effect. There are 11 Ausadha Pradana Margas are present in the body. 2 in chaksu marga, 2 in Karna Marga, 2 Nasa marga, 1 Aasya marga, 1 mutra marga, 1 yoni marga, 1 guda Marga, Romakupa all over the body. Different margas have different kinds of reachability, that's why a route can act locally and also can act on a far site. This concept will improve the chikitsa and different procedure which are adopted to cure diseases.

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39. Acharya J.T. Charaka Samhita of Agnivesha with the Ayurveda Dipika commentary by Cakrapani Datta, Chaukhamba Surabharati Prakashan, Varanasi, reprint 2009 page 683