

**ETIOPATHOGENESIS AND AYURVEDIC MANAGEMENT OF
PALITYA (PREMATURE GREYING OF HAIR) w.s.r TO
PANCHAKARMA : A REVIEW**

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ABSTRACT :

Nowadays, premature greying of hair is a common cosmetic problem affecting young population. Healthy, good looking, black hairs makes person externally beautiful and enthusiastic. *Palitya* generally happens in old age and *pittaja prakriti purush*, but certain dietary habits, behavioural lifestyle and psychological causes influence premature greying of hair. Current management trends available are not satisfactory. *Ayurveda* can aid in managing *palitya* with *shodhana* and *shaman* therapies. Various *Ayurvedic* and modern lexicons, journals, internet are used for present study.

This study reviews Ayurvedic and modern etiopathogenesis and management trends to propose ideal treatment for *palitya*.

Key words: *Palitya*, Premature greying of hair, *Nasya*, *Panchakarma*

INTRODUCTION: Premature greying aetiology of *palitya* is vitiation of of hair i.e. *palitya* is a burning cosmetic *dehoshma* and *ushna guna* of *pitta* issue in present era . The onset and progression of greying or canities correlate to *romakoopa* and causes *paka* of hair². Treatment of *palitya* as mentioned in *Ayurveda* includes *shodhana* and *shaman chikitsa*.

The present review work was done to critically analyse *Ayurvedic* concept of *palitya* and its management to provide satisfactory results to society.

Nowadays, the incidence of *palitya* is common in young age between 20-30 years age group. Even in children also the incidences are increasing day by day. Hair colour contributes immensely in physical appearance and self- perception. Premature greying aids to embracement & social stigma. Current treatments available are not much satisfactory to cure, check or prevent this problem.

In *Ayurveda*, it is mentioned under the heading of *Kshudraroga* and *shirogata roga*¹. It can be classified as physiological and pathological phenomenon. The main

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AIMS AND OBJECTIVES:

- 1) To study normal anatomy and physiology of hair - *Ayurvedic* and modern view.
- 2) To study etio pathogenesis of *palitya*.
- 3) To study current treatment trends of *palitya*.
- 4) To study *Panchkarma* treatment of *palitya*.

MATERIALS AND METHODS: Palitya is studied through different Ayurvedic & modern text, journal, magazine, Internet. It

Normal Physiology Of Hair

Ayurveda View: During Ahara poshana karma, Ahara rasa is processed by jatharagni and dhatwagni to convert it into 2 part, Prasad bhaga and kitta bhaga³. During asthi dhatwagni vyapara, the poshakamshas which nourish asthidhatu are converted into 2 parts; its kitta bhaga is processed by the action of malagni to produce kesha⁴.

Acharya sharangdhara said the kesha is the updhātu of majja dhatu⁵.

Kesha Varnotpatti: Regarding the production of the colour of hair, Ayurveda says that Teja Mahabhuta is responsible for the colouration of hair. Bhrajaka Pitta, one of the manifestations of Teja Mahabhuta, combines with Prithvi and Vayu Mahabhutas and produces black colour of kesha⁶.

Modern View: Hair is simple in structure made of a tough protein called keratin. A hair follicle anchors each hair into the skin. The hair bulb forms the base of the hair follicle. In the hair bulb, living cells divide Pheomelanins are also made from the same tyrosine as eumelanins and the process is much the same with tyrosinase playing a key role. Pheomelanins are produced when an intermediate product in the eumelanin production pathway interacts with the amino acid cysteine. This results in the formation of a pheomelanin molecule

is a review article based on data collected from different source.

STUDY DESIGN:

and grow to build the hair shaft. Blood vessels nourish the cells in the hair bulb, and deliver hormones that modify hair growth and structure at different times of life.

Hair colour – biochemistry⁷:

In humans, all the different hair colours are due to just two types of pigment (melanin) called eumelanins are the dark brown and black pigments and pheomelanins are the red and blonde pigments.

Eumelanins are very strong, stable proteins made from tyrosine. The large eumelanin biochemical structure is formed by processing the amino acid tyrosine into dopa and dopamine and connecting several of these molecules together to form eumelanin. The key enzyme in this process is tyrosinase. The more tyrosinase activity the more eumelanin is formed. This is one method by which different people have different shades of brown to black hair colour. Tyrosinase activity increases till middle age and thereafter tyrosinase activity decreases turning hairs grey.

which contains sulphur from the cysteine. These molecules are yellow to orange in colour. So this is another way by which different shades of hair colour can be produced. The more interaction there is between dopaquinone and cysteine the more yellow and orange pigments are produced.



CAUSES OF GREYING OF HAIR:

Ayurveda view:

The first line of treatment mentioned in any disease is *nidana parivarjana*⁸, which breaks the *samprapti chakra* and hinders manifestation of disease. In case of *palitya*, specific *nidana* are not mentioned, but on basis of *samprapti*, *pitta prakopaka nidana*⁹, *rasadushti*¹⁰ and *asthidushti*

¹¹*nidana* can be considered as *nidana* of *palitya*.

Nidana of *palitya* can be classified under these headings¹²-

1. Dietary (*aharaj*)
2. Environmental (*viharaj*)
3. Psychological (*mansika bhava*)
4. Unknown cause (*adibalaprivrita*)

CAUSES OF PALITYA:

<i>Aharaj nidana</i>	<i>Viharaj nidana</i>	<i>Mansika hetu</i>	<i>Anya hetu</i>
<i>Anashana</i> <i>Adhyashana</i> <i>Virrudha Ahara</i> <i>Ushna , tikshna Ahara</i> <i>Abhishyandi Ahara</i> <i>Excessive use of lavana and kshara rasa</i>	<i>Ratrijagarana</i> <i>Atapa, Vayu sevana</i> <i>Shiroabhyanga</i> <i>Ayoga</i> <i>AtiVyayama and upavasa</i> <i>Dushita Jala snana</i>	<i>Krodha</i> <i>Shoka</i> <i>Shrama</i> <i>Anxiety</i> <i>Depression</i>	<i>Pitta prakriti</i> <i>Change in lifestyle</i> <i>Exposure to certain environment</i>

1. DIETRY (AHARA):

(a) The *Ahara nidana* are *Viprakrishta nidana*. *Ushna, tikshna, lavana, amla, vidahi, tila taila, kulatha, alsi, sarshapa, curd, kanji etc pitta vardhaka ahara*, in the form of *Anashana, Adhyashana, Virrudha Ahara*. These *nidanas* vitiate *pitta* and affect *rasa dhatu poshana karma, Rasa dhatu* and *asthi dhatu dushti* is the cause of *palitya*. When *Ahara rasa* is not digested properly, results in improper formation of *dhatu* leading to *palitya*¹³.

(b) Excessive use of *lavana* and *kshara rasa* is also a cause of *palitya*¹⁴.

2. ENVIRONMENTAL

(VIHARAJ): Certain environment, change in lifestyle and regimen are included under *Viprakrishta viharaj nidana*.

(a) *Ratrijagarana*: Due to regular indulgence in *ratrijagarana, vata vriddhi* takes place which in turn causes *rasavaha srotodusti* and *Akalaj-Palitya*.

(b) *Atapa sevana*: Due to excessive *Atapa sevana*, like continuous working in field farmers or other hard workers, over hot sun may develop *Akalaj-Palitya*. Sunrays increase the *ushnta* of *Keshabhumi* and *roma kupa* to produce *Akalaj Palitya*.

(c) *Rajo sevana, Dhuma sevana and Dushita Vayu sevana*: They make the scalp dry due to the increase of *sthanika rukshata*, which results in reduction of *snigdhamsha* may lead to greying of hair.

(d) *Shiro Abhyanga Ayoga*: This causes the improper nourishment of both scalp and hair follicles

(e) *Dushita Jala snana*: This is also the *bahya nidana*. In certain parts of India like *Saurashtra, Balhika and Saindhava* especially coastal areas suffer from lack of fresh and soft water. This is because of *Desha swabhava*. It contains high salt content and continuous usage of such water is harmful to scalp.

(f) *AtiVyayama and Upavasa*: Due to excess physical work and continuous indulgence in *upavasa vata vriddhi* occurs. Due to *vikshepana karma* of *vata* it aggravates to *Shiras*, causes *sthanika tridosha dushti*, which in turn causing *Akalaj Palitya*.

3. **MANASIKA HETU**: *Krodha, Shoka, adhika chinta* and *manasika shrama* are considered to be both *pitta* and *vata prakopaka nidanas* which are responsible for early greying of hair. These are the specific *nidanas* for *Akalaj Palitya* mentioned in classics, through which *swatantra* type of *vyadhi* manifests.

(a) *Krodha* : Due to *krodha swasthana sanchita pitta* gets *kupita* along with *Vayu*, and causing *sharir ushma vriddhi* along with other symptoms like *trishna, daha*.

(b) *Shoka* : Due to *Shoka vata vriddhi* takes place. This leads to *vishamagni* causing *rasa-rakta dushti* and direct influence of *Shoka* on *dehoshma vriddhi* leads to *Akalaj Palitya*.

(c) *Shrama* : Due to excess *shrama*, *vata* gets vitiated, in turn vitiates *jatharagni & rasa dushti*, and direct influence of *shrama* on *sharirika ushma vriddhi* causing *Akalaj-Palitya*

4. **ANYA HETUJA**: *Prakriti prasakta*: *Pitta prakriti* persons naturally develop premature greying of hair.

MODERN VIEW¹⁵:

Aging or achromotrichia: The change in hair colour occurs when melanin ceases to be produced in the hair root and new hairs grow in without pigment. The stem cells at the base of hair follicle produce melanocytes, the cells that produce and store pigment in hair and skin. The death of the melanocyte stem cells causes the onset of greying.

Free radical theory: Greying of hair may be triggered by the accumulation of hydrogen peroxide. Abnormally low levels of the enzyme catalase which breaks down hydrogen peroxide and relieves oxidative stress in patients suffering from vitiligo. Since vitiligo can cause eyelashes to turn white, the same process is believed to be involved in hair on the head (and elsewhere) due to aging.

Stress: Stress, both chronic and acute, may induce achromotrichia. There is some

evidence for chronic stress causing premature achromotrichia, but no definite link has been established. It is known that the stress hormone cortisol, accumulates in human hair over time, but whether this has any effect on hair colour has not yet been resolved.

Medical conditions: Albinism is a genetic abnormality in which little or no pigment is found in human hair, eyes, and skin. The hair is often white or pale blond.

Vitiligo is a patchy loss of hair and skin colour that may occur as the result of an auto immune disease. In a preliminary 2013 study, researchers treated the build-up of hydrogen peroxide which causes this with a light-activated pseudocatalase.

Premature greying has been shown to be associated with various autoimmune (AI) disorders such as vitiligo, pernicious anaemia, AI thyroid diseases, and premature aging syndromes like Werner's syndrome.

Malnutrition is also known to cause hair to become lighter, thinner, and more brittle. Dark hair may turn reddish or blondish due to the decreased production of melanin.

SYMPTOMS OF PALITYA (ROOPA)

Ayurveda view¹⁸: Lakshana of palitya are mentioned on basis of *tridosha pradhanta* by *Ashtang Hridayam*

1. *Vata pradhana*:- *sphutitam, shyava, karksha, ruksha, jwalataprabham*
2. *Pitta pradhana*:- *dahayukta, pita*
3. *Kapha pradhana*:- *snigdha, vivradhi, sthula, shukla.*
4. *Tridoshaj*: - *sarva dosha lakshana yukta.*

According to *yogaratnakar*:-

1. *Vata* :- *vishama, ruksha*
2. *Pitta* :- *pitabha*

The condition is reversible with proper nutrition. A role for environmental factors and nutritional deficiencies has also been postulated..

Artificial factors: A 1996 British Medical Journal study found that tobacco smoking may cause premature greying. Smokers were found to be four times more likely to begin greying prematurely, compared to non-smokers.

TYPES OF PALITYA¹⁶:

1. ***Kalaj palitya***: If *palitya* occurs after certain age due to vitiation of *tridosha* it is *hetu* of *kalaj palitya*.
2. ***Akalaj palitya***: *palitya* occurring due to vitiation of *shariroushma* and *pitta dosha* in an early age, is known as *Akalaj palitya*.

Modern view¹⁷:-

- **Congenital Canities** - This condition exists before or at birth. It occurs in albinos who are born without pigment in the skin, hair and eyes.
- **Acquired Canities** - This condition develops with age and is the result of genetics.

3. ***Kapha***: - *sarvarupanvita.*

Modern view¹⁹:

White Fore-Lock: a triangular or diamond-shaped depigmented macule with white hairs, usually located in the anterior midline of the scalp, seen in piebaldism.

Ringed Hair is a variety of canities, characterized by alternating bands of gray and pigmented hair throughout the length of the hair strand.

ETIOPATHOGENESIS (SAMPRAPTI): Ayurvedic View²⁰:

Acharya Sushruta and *Madhavakara* have emphasized pathogenesis with the increase of *vayu* especially due to

excess of *Shoka* and *shrama*. At the same time the *pitta* is being increased in its *ushna guna*. This provoked *pitta* circulates throughout the body through *rasayana* is by the virtue of *vikshepana guna* of provoked *vata* to increase the *sharira ushna*.

This *sharirika ushna* reaches to *Shiras* and vitiates *sthanika vata karya* and *shleshma karya*. The *sthanika pitta* and *Kapha dushana* happens, causing *bhrajakagni dushti Bhrajaka pitta* works are hindered and causing *vikrita kesha Varna utpatti*. This *samprapti* emphasizes the involvement of *dehoshma* in the disease pathology.

Another *samprapti* of *Akalaj Palitya* initiates with *jatharagni dushti* due to *pitta*

pradhana tridosha dushti resulting *asthi dhatwagni dushti*, which leads to improper formation of *mala bhaga* of *asthi* i.e. *kesha*. As there is *dushti* of *kesha poshaka bhava* and *dushti of sthanika Bhrajaka pitta, shleshma* and *vata, vikrita varna* of *kesha* takes place.

If the *dushti* occurs at any levels of *samprapti, kesha utpatti prakriya* hinders and *Kesha Varna utpatti vikriti* occurs. The *Vyadhi kriya kala* of *Akalaj-Palitya* initiates with, *sanchayavastha* occurring at *aamashaya, prakopa* takes place in *koshtha* and *prasaravastha* occurs in *sarva sharira. Roma koopa* is the place where in the *dosha-dushya sammurchana* takes place and the disease manifests.

SAMPRAPTI GHATAKA:

<i>Dosha</i>	<i>Pitta, Bhrajaka pitta, Vayu, Kapha</i>
<i>Dushya</i>	<i>Rasa, asthi dhatu, kesha</i>
<i>Agni</i>	<i>Jatharagni, dhatwagni</i>
<i>Srotas</i>	<i>Rasavaha, asthivaha</i>
<i>Srotodusti</i>	<i>Sanga, vimarggamana</i>
<i>Udbhava sthana</i>	<i>aamashaya</i>
<i>Vyadhi adhishtana</i>	<i>Keshabhumi</i>
<i>Roga marga</i>	<i>Bahya roga marga</i>
<i>Sadhya asadhyata</i>	<i>Ekdoshaj sadhya, sannipataj asadhyata.</i>

Etiopathogenesis according to modern: Hair colour is the pigmentation of hair follicles due to two types of melanin: eumelanin and pheomelanin. The colour of human hair depends on melanogenesis, the process of synthesis of melanin and its subsequent distribution from the melanocyte to keratinocyte. The biological process of grey hair appears to be associated with the progressive loss of pigment producing cells. Depletion of

melanocytes leads to premature greying of hair²¹.

The extraordinary melanogenic activity of pigmented bulbar melanocytes in the growing (anagen) hair follicle, continuing for up to 10 years in some hair follicles generates large amounts of reactive oxygen species (ROS) via the hydroxylation of tyrosine and the oxidation of DOPA to melanin and places melanocytes under a higher oxidative

stress load. Impairment of antioxidant system with age probably leads to accumulation of ROS and oxidative stress that damages the melanocyte. Oxidative stress generated outside hair follicle melanocytes, for example, by pollution, UV light, psycho-emotional or inflammatory stress, may add to this endogenous oxidative stress and overwhelm the hair follicle melanocyte antioxidant capacity resulting in enhanced terminal damage in the aging hair follicle. Apart from oxidative stress, other factors may also contribute to the process of greying. Insufficient neuroendocrine stimulation of hair follicle melanogenesis by locally synthesized agents, such as adrenocorticotrophic hormone, α -MSH, and β -endorphin, has also been hypothesized as a possible mechanism for hair greying. It has been suggested that binding sites for the pro-eumelanogenic peptide α -MSH are only expressed on melanogenically active melanocytes in pigmented hair follicles and their absence in senile white hair melanocytes may render these cells unresponsive to the melanogenic influence of this melanotrophin. Smoking was reported to be significantly correlated with hair greying, and impairment of stem cell regenerative capacity with substance abuse was postulated to lead to greying in a single case report. Stem cell factor (SCF) and its receptor (KIT) were shown to have an important role in signalling in the maintenance of human hair follicle melanogenesis during the anagen cycle and in physiological aging of the hair follicle pigmentary unit.²²

CURRENT MODERN TREATMENT TRENDS²³: In spite of various

researches, treatment options still remain far from satisfactory and no effective therapy is available.

- Temporary hair darkening has been reported after ingestion of large doses of p-aminobenzoic acid (PABA).
- Repigmentation of previously gray scalp hair has been reported following prolonged (around 3 years) use of latanoprost, a PGF 2 alpha eye drops.
- Prostaglandins are one of the most potent stimulators of melanocyte growth and melanogenesis.
- Hair darkening has also been described after X-ray irradiation and following electron beam therapy.
- Hair colors currently used are: temporary (textile dyes), natural coloring (e.g., henna), semi-permanent (small molecules such as phenols, diamines etc), and permanent (combination of developer, coupler and oxidant).

TREATMENT TRENDS IN AYURVEDA: The treatment of palitya is like the treatment principle of any disease i.e. avoidance of causative factors like *Pittavardhak Ahara* and *Vihar* followed by *Samshodhana* and *Shamana chikitsa*.

Chikitsa of *palitya* is mentioned as follows²⁴:-

1. *Samshodhana*
2. *Shiro Abhyanga*
3. *Lepa chikitsa*
4. *Krishnikarna yoga*
5. Oral medications

SAMSHODHANA CHIKITSA: Panchkarma plays important role in chikitsa of palitya as Acharya Charak and Vagbhatta mentioned *samshodhana* therapy causes expulsion of vitiated *dosha* and thus breaks the samprapti of *palitya*. *Vamana* expels *apakva Pitta* and *Kapha*

dosha from *urdhavamarga*. *Virechana* expels *pitta dosha* from *adhobhaga*²⁵.

Acharya Vagbhatta has mentioned *samshodhana* word in terms of both *sarvadaihika* and *sthanika* like *shirovirechana*. *Shirovirechana* refers to *shodhana* type of *navana nasya*.

NASYA KARMA²⁶: In *Akalaj-Palitya* the *navana* and *pratimarsha Nasya* is mentioned for early greying of hair. The *yogas* for *Nasya karma* mentioned in different classics have been given below.

Yogas for Nasya karma

1) *1 kudava tila oil + 1 prastha Bhringaraja swarasa+1 pala Yastimadhu +1 prastha godugdha--Oil is used in Akalaj Palitya in the form of Nasya.*

2) *Bhringaraja ghrita: Bhringaraja swarasa* cooked in bile. *Nasya* for a week destroys *palitya*.

3) *Prapoudarikadi Taila: Prapaundarika + Maduka+Pippali + Utpala + Amalaki + Oil.*

4) *Chandanadya Taila: Chandana + Madhuka + Moorva + Triphala + Neelotpala + Priyangu + Guduchi + Shunthi + Loha bhasma + Jatamansi + Saariva + Krishna saariva +Bhringaraja - Taila Nasya in Akalaj Palitya*

5) *Kashmaryadi Taila: Kashmarya + Arjuna + Jambu + Sahachara flowers and fruits + Fruits of Arka + Triphala + Fruits of Madhuka + 32 pala of Bhringaraja swarasa - Taila Nasya in Akalaj-Palitya*

6) *Bhringaraja Taila: Goksheer + Bhringaraja swarasa + Yastimadhu Kalka - Taila Nasya cures Palitya.*

7) *Nimba beejadi Taila: Nimba beeja; Bhavana with Bhringaraja Swarasa + Asana kwatha* mechanical extraction of *taila* is used for *Nasya* - Indicated in *Akalaj*

Palitya with restriction, milk as diet for 1month.

8) *Nimba taila Nasya: Abhavita nimba beeja taila* in the form of *Nasya* for 1month with diet as cow's milk is also helpful in *Akalaj Palitya*.

9) *Neelyadi Taila: Neeli patra + Shirishapatra + Saireyakapatra + Bhringaraja swarasa bhavita + Tila Beeja + Gunja beeja - Oil* is used in the form of *Nasya*.

10) *Ksheeradi taila: Godugdha / Aja dugdha + Sahachara swarasa + Bhringaraja Swarasa + Tulasi Swarasa + Yastimadhukalka+ Tila taila.* This *yoga* is kept in *Meshashringa*.

11) *Jala nasya rasayan*²⁷ {*nasya* with *Jala* before sunrise}.

Nasya Yogas can be administered in the form of *Pratimarsha and Marsha*.

SHIROABHYANGA²⁸

1) *Yastimadhuka taila :-yastimadhu mixed with Amalaki sawarasa.*

2) *Nilikadi taila*

3) *Bhringaraja taila :- loha kitta +trifala+sariva mixed with Bhringaraja swarasa and oil*

4) *Maha neela taila*²⁹

5) *Sarayakadi taila*³⁰

SHIRO LEPA³¹

1) *Lohachurna + Bhringaraja + Haritaki + Vibhitaki + Amalaki + black soil* are taken in equal quantity powdered and mixed with sugar cane juice. This mixture is kept for 1month and that juice is applied over hair.

2) *Two Amalaki fruits, two Haritaki and two Vibhitaki, 5 karsha Amra majja; 1 karsha lohachurna* are mixed well and kept in Iron jar. To this water is added and this is kept for whole night and applied.

3) *Triphala + Loha churna + Bhringaraja swaras* - Kept in matured coconut for month. This is applied over scalp

4) *Dugdhika / Karveera Moola* paste with *Ksheera* is applied as *Lepa* in root of hair follicle of grey hair³².

5) *Priyaladi Lepa*: - *Ksheera+ Priyala+ Yashtimadhu+ Jivakadi Gana +Kala Tila+ Pippali*.³³

6) *Tiladi Yoga* :-*Amalaki Churna+Kala Tila+ Kamal Keshar+Yashtimadhu* mixed with honey³⁴

7) *Anya Yoga*³⁵ :-

(a) *Yashtimadhu +Amalaki +Madhu*.

(b) *Tila +Amalaki +Madhu*.

(c) *Jamuna Asthi +Kasis+ Loha Kitta+ Sharkara*.

(d) *Sereyak Pushpa+ Nilini+ Trifala+ Bhringraj* mixed in *Ajamutra*.

KRISNIKARANA YOGA³⁶

1) In a slightly matured fruit of coconut the powder of *Triphala*, *loha bhasma*, and the juice of *Bhringaraja* should be kept. This coconut is placed in a pit properly dug out in the earth. After a month, this should be taken out. Then hair on head should be cut and the paste of the above mentioned recipe should be applied over the scalp. After the application head should be wrapped with banana leaf for 7 days. Then the head should be washed with the decoction of *Triphala*. While using this recipe, patient should take milk and meat soup. It's an excellent recipe for making the hair black in scalp.

2) Powder of *Triphala*, *Loha bhasma* taken in equal quantities, should be triturated by adding water. To this equal quantity of oil is added and cooked for brief period. After the *Bhringaraja swarasa* equal quantity of oil should be mixed with the above

mentioned recipe, again cooked. This oil is stored for month and applied.

ORALMEDICATION³⁷

•*Amalaki rasayan*

•*Amalaki+ Krishna tila+ Bhringaraja rasayan*

•*Vridha daruka mula rasayan*

•*Bhringrajadi rasayan*

•*Siddha makardhwaj*

•*Vasant kusumakar ras*

•*Gokshura+amlaki+amrita churna with honey and ghrita (in unequal quantity)*.

•*Saptamrita loha*

•*Loha churna*

•*Bhringaraja churna*

•*Guduchi churna*

DISSCUSSION:

1) *Palitya* is a disease which does not have satisfactory treatment till date. The reason behind that may be improper execution of treatment. In Ayurveda the first line of treatment seems *shodhana*. *Shodhana* expels vitiated doshas from body. Basic pathogenesis of *palitya* is based on either *margavarodha* or *dhatu kshaya/dushti* or sometimes both. After proper *shodhana* any treatment works better as clean cloth can be coloured better than a dirty cloth. Therefore, *shodhana* must be considered as first line of treatment here.

2) Amongst *shodhana*, though *Vamana* and *Virechana* are best but *Nasya* seems treatment of choice in *palitya* because of its action on *uttamanga* and it can act as both *shodhana* and *shaman*. Though *Vamana* and *Virechana* must be planned prior to *nasya* in presence of *bahudoshavastha*.

3) If we go through the mechanism of *Nasya*, it is observed that the drug which is administered by nasal route it is absorbed by three process in nasal mucosa. The

olfactory neurons, second by supporting cells and surrounding capillaries and the third way by cerebro-spinal fluid (CSF). The trans-neuronal absorption is generally slow where as by supporting cells and capillary network it is rapid. The posture involved during the Nasya process in such a way that head is lying down leads to momentary hyperaemia and capillary are get dilated and results in 150% blood flow. There is also possibilities of falling arterial pressure and may encounter Cushing's reaction. When the ratio between CSF pressure and cerebral artery pressure is reduced, the increased CSF pressure leads to compress the artery in brain resulting a transient ischemia in brain. As a result the arterial "ischemic response" will raise the arterial pressure in reference to limbic system the olfactory pathway influencing hypothalamus which in turn may cause the inhibitors effect through the pituitary to secrete MSH³⁸.

4) *Shiroabhyanga, dhara, lepa* are other external treatments which can be used simultaneously but there results are limited if used without *shodhana*. Moreover, many oils and lepas are only *Krishnikarna* in nature so can't be taken as a genuine treatments.

5) Although some of these may act as a stimulant or nutrient for the hair follicles like *nimba beeja taila, Bhringaraja* and *nirgundi, lepa of karveer moola swarasa* and *dugdhika swaras* etc can act on *margaavrodha. Bhringaraja, nirgundi, loha churna acts as kesha ranjana.*

6) After proper *shodhana*, shaman drugs should be given. For giving various Shaman drugs following explanations can be given.

• *Kesha* is the mala of *asthidhatu* and drugs like *musta, amalki, guduchi* acts as *asthidhatu pachana and shodhana*.

• *Kesha is updhātu of majja*, thus drugs which acts on *majja dhatu* like *ropya bhasma, abhrak bhasma* etc can be given.

• *Pitta dushti* is the main cause of *palitya*. *Pitta hara diet* like *Madhur, sheeta, kashaya rasa* and drugs like *guduchi*, can be remedy for *palitya*.

• *Rasa dhatu dushti* is another cause of greying of hair, *Amalaki rasayana, vasant kusumakar rasa* can acts as *rasapushtikara*.

• *Tikta ghrita* gives *poshana* to *asthi dhatu* and can prevent greying of hair.

CONCLUSION: *Yukti* is very important in proper treatment of any disease. *Yukti* of medicine depends on *matra and kala*. Any drug given with *yukti* brings better result. After reviewing the literature we can conclude that *palitya* is a disease which has *srotorodha* along with *dosha prakopa*.

From the above discussion we can say that The alternate use of *shodhana and shaman* treatment can bring satisfactory results in case of *palitya*.

Proposed line of treatment for early greying of hair-

5 days *shodhana nasya + takra dhara + ruksha dravya lepa*.

5 days *shamana nasya + Shiroabhyanga + snigdha dravya lepa*.

This 10 days treatment will be given monthly, for 3 months.

Therefore, alternate use of *shodhana* and *shaman*, if one uses with *yukti*, can become a remedy for premature greying of hair. Thus, Ayurveda especially *Panchkarma* can play a key role in coming future.

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