INTRODUCTION

Loss of previously existing scalp hair is termed alopecia. This is of two types permanent and temporary. Androgenetic Alopecia (male pattern baldness) is commonest cause of alopecia. Androgen and genetic background are prerequisites for developing this alopecia. It is transmitted as an autosomal dominant trait. It occurs in appropriate age. Thus, scalp hair is normal in childhood and adolescence. Universally this is an extremely common disorder that roughly 50% men and perhaps as many women older than 40 years involved. Almost all patients have an onset prior to age 40 yrs, although many of the patients (both male and female) show evidence of the disorder by age 30yrs.

In Androgenetic Alopecia thinning of hair shaft occurs in initial stage and after that increase in the number of villus (short and fine) hair occurs. Slowly the majority of hair region turn into villous hair. Finally, the scalp looks smooth and bald with only fine villus hair. First sign of male pattern baldness is seen during the early twenties as recession of temporal line and then in late twenties the frontal line. As the condition progress, there is further frontal and temporal recession and patch of baldness on the vertex. Finally, even the...
parietal and then occipital hair may be lost leading to complete baldness. In most individuals, the condition does not progress fully. In Ayurveda classic, symptoms of alopecia correlate with Khalitya.

In Khalitya, Bhrajaka Pitta sites in skin and roma kupa (opening of hair follicle) get vitiated and enter in skin through roma kupa with vitiated vata dosha due to which hair fall occurs, after that vitiated Rakta and Kapha dosha block the opening of hair follicle due to which production of new hair stop. Overall in Khalitya, hair fall occurs and new hair does not appear that leads to baldness.

Khalitya is tridoshaja vyadhi i.e. Vata, Pitta, Kapha with Rakta dosha. All doshas are vitiated but have predominance of Pitta and Rakta dosha mainly. In Ayurveda classics, Jalaukavcharana (application of Leech) is best treatment for Pitta and Rakta predominant disease. Raktamokshana is one of karma (mechanism) of panchkarma, shodhana therapy. In this, impurity of body and toxic waste of the body is removed through blood. In Khalitya, we used Jalauka (leech-Hirudo medicinalis) for bloodletting due to predominance of Pitta and Rakta. Application of leech is a method where impure blood is removed from body which is being sucked by leeches. Application of leech, bring out the impure blood caused by vitiated dosha and balance Pitta, Rakt, Vata dosha which in turns hold the hair on scalp and open the blocked hair follicle opening which helps in growing new hair follicle and hair. By providing oral medication we give strength to hair to proliferate and retain their normal status. Oral medications which were prescribed to patient were Saptamrita loha and Asthiposhaka vati. All this conservative medication was used for the pacification of Pitta and Rakta. As hair is described as mala of asthi dhatu, to maintain the growth of hair supportive medication for asthi dhatu is prescribed. Thus it was assumed that purification mechanism in combination with oral medication would helpful in the treatment of Khalitya.

CASE REPORT-

History of the presenting illness: A 24 yrs old male was presented in O.P.D number 15 of Rog-nidan department presenting with chief complaint of thinning of hairs with recession of hairline in temporal and frontal region. Around about 6 yrs back the person was in a healthy situation. Later, initial thinning of hair started and then hair started shedding off. Simultaneously he was suffering from symptoms of Amlapitta like heart burn, flatulence, chest pain. With this he has got mental stress and disturbed sleep. He has taken treatment of allopathic medicine for 2 years but was not satisfied. When he visited to O.P.D., first of all we carried out his routine blood investigation as complete blood count, blood sugar level; liver function test, renal function test, routine urine examination and thyroid function test to rule out any possible associated disorder but findings of these investigations were found within normal limit. There was no significant past history of any other chronic illness in patient. No history of any type of addiction was found.

TREATMENT PLAN-

Treatment included sanshodhan karma (purification) that is Jalaukavcharana (application of leech). Total six settings of Jalaukavcharana were done on each Saturday of week with oral medication for 2 months regular. The composition of oral administration of drug was Saptamrita loha and Asthiposhaka vati. Preparation and process of Jalaukavcharana- Leech therapy is consid-
lected most unique and most effective method of bloodletting. It can be tried in all mankind including females, children, old and patient having poor threshold to pain. Two leeches are of ≈5 cm applied over to fronto-temporal region of both side. When leeches left the site by their own (after sucking blood for approximately 30 min), dressing with haldi (turmeric powder) is done, it acts as antiseptic for small wound created by leech. Removed leeches were than stored after emesis of sucked blood and reused after 7 days. Each Saturday of week application of leeches are done. After 2 month the patient was examined for the presence of hair follicles and growth of hair over affected area. Criteria of assessment were done by digital photography and clinically by presence of hair on the affected site of scalp.

**DISCUSSION**

After six sittings of leech application, patient had reported significant improvement in his symptoms, hair growth in affected area and thickness of hair in scalp. Also, patient got relief from symptom of acidity. In the management, patient was undergone through Raktamokshana process (bloodletting using leech), it is one of the procedure of panchkarma. The principal of the therapy is removal of vitiated Pitta and Rakta, impurities, toxin from body through blood. Jalaukavcharana is removal of blood by application of leech. Leeches are used in disorder produce by vitiated Pitta and Rakta, Pitta and Rakta have ushna (hotness) guna (property), leech described by Acharya Sushrut have sheeta guna (coolness) because they live in cold water. Leech (Hirudo medicinalis) have property of discrimination of impure blood and pure blood, it sucks the impure one and left the site. Leech contains Hirudin in saliva which inhibits blood coagulation by binding to thrombin, Hyaluronidase which increases interstitial viscosity, B-dellins which is anti-inflammatory, Acetylcholine which is vasodilator. In all leech increase the blood flow of the affected site, helps in infection and inflammation. In Khalitya, mainly Pitta and Rakta dosha are vitiated with Vata dosha, Jalaukavcharana helps in removal of Pitta and Rakta dosha and obstruction caused by Vata and Kapha dosha due to which pure blood circulation over affected site is occur.

With purification process, the patient was administered with oral medication like Saptamrita loha and Ashthiposhaka vati. Saptamrita loha contain Yashtimadhu (Glycyriza glabra), Triphala {Amalaki (Emblica officinalis), Bibhitaki (Terminalia bellerica), Haritaki (Terminalia chebulla)}, shuddha loha bhasma (purified iron). It was administered to the patient in the dose of 500mg twice a day after meal. Yashtimadhu have properties like sheeta (coolness), madhura(sweet), guru(heavy), snigdha(unctuous). It is tridosahar, balances all three dosha. Acharaya Charak included Yashtimadhu in jeevaniya gana herbs that promote longevity; it helps in retaining and maintaining healthy status of hair. Varnya gana, give lustre to hair and stops greying of hair, snigdha and guru properties helps in dryness of hair and provide thickness to hair. In triphala, Amalaki has cooling effect that manages Pitta, gives nutritional support to hair and helps in hair growth. Bibhitaki, particularly good for Kapha, it helps in removal of obstruction caused by vitiated Kapha. Haritaki, though having a heating nature, it is still good for all three dosha and it removes toxins from body. Overall Triphala is also tridosahar. Shuddha loha bhasma have
the property of balancing Vata, Pitta, Kapha. It gives the strength to Rakta dhatu which is very important factor of producing Khaliya. Overall Saptamrita loha balance tridosha, mainly Pitta, provide strength to hair and source of iron which is very important for hair growth. Second is Ashhiposhak vati, it contain kukutandatwak bhasma (egg shell powder), asthishrinkhala (Cissus quadrangularis), arjuna (Terminalia arjuna), ashwagandha (Withania somnifera), guduchi (Tinospora cordifolia), shuddha guggulu (Commiphora mukul), bala (Sida cordifolia), babool (Acacia arabica), amalaki (Embelica officinalis), shudha laksha (Laccifer lacca). As hair (kesha) is mala of asthi dhatu, it is very essential to give nutrients to astthi dhatu to support hair fall. In asthi dhatu dushti hair fall occur and hair growth doesn’t happen in proper manner. Kukutandatwak bhasm and asthishrinkhala is rich source of calcium and promote healthy bone and bone density which indirectly support the hair and give density to hair and stop hair fall. Ashwagandha and guduchi is tikta rasanaya which is useful in vitiated Pitta and Rakta dosha. Kashaya (astringent), tikta (bitter), madhur (sweet) all three rasa balance the Pitta dosha. Ashwagandha, guduchi are tridoshhar(pacifies all three doshas) but predominantly tiktarasatmak, acts very effectively on pitta dosha. Ashwagandha promotes restorative sleep, reduces negative effect of stress and anxiety which is very important cause of hair fall. Shuddha guggulu, babul, shuddha laksha these are kashaya rasatmaka. Kashaya rasa have supportive function to the bone which in turn support hair growth and increase holding capacity of hair on scalp. Kashaya rasa Stop the flow i.e it stop falling of hair. Bala is mainly vatahara drug which balance Vata and Pitta. Due to oral medication symptoms of acidity also subsided. After completion of 2 months treatment, patient got significant improvement in his chief complaint which was 50% according to the patient.

CONCLUSION

Jalaukavcharana is best alternative therapy which can be used to treat Khaliya with oral medication. Leeching can be learned relatively quickly and can reduce the complication arising from the excessive use of synthetic drugs. In addition it is economical and cost effective therapy. The result of this case study has shown a potential for treating Androgenetic alopecia.

**Oral drugs, their Composition, Doses and Exact effect**

<table>
<thead>
<tr>
<th>Name of drug compound</th>
<th>Ingredients</th>
<th>Dose</th>
<th>Frequency</th>
<th>Duration</th>
<th>Exact effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saptamrita loha</td>
<td>Yashtimadhu, Triphala, Shudha loha bhasma</td>
<td>2 tab 500mg</td>
<td>Twice a day</td>
<td>2 months</td>
<td>Balance pitta dosha, source of iron</td>
</tr>
<tr>
<td>Ashthiposhak vati</td>
<td>Kukutandatwak bhasma, Ashtishrinkhala, Arjuna, Ashwagandha, Guduchi, Bala, Babul, Shuddha</td>
<td>2 tab 500mg</td>
<td>Twice a day</td>
<td>2 months</td>
<td>Balance vata dosha, Ca supple-</td>
</tr>
</tbody>
</table>
guggulu, Shuddha laksha, Amalaki.

1st day of O.P.D before treatment

After 2 month of treatment

REFERENCES
1. Sushruta Samhita by Maharshi Sushruta, Nibandhsamgraha Commentary by Dalhanacharya, Edited by Yadavj T., Varanasi, Choukhamba, 2012, Nidans thana, Chapter 13, p.g. 322.
2. Ashtanga Samgraha of Vagbhata, translated by Murthy K.R, Varanasi,
Sandhya Pathak et al: Management Of Khalitya W/S To Androgenetic Alopecia Through Jalaukavcharana By Ayurveda: A Case Study

Choukhamba,2005,Uttar tantrta,Chapter 27,p.g. 21.

3. Skin diseases and sexually transmitted infection by Uday Khopkar,Bhalani publications 2015, Chapter 16, p.g. 165.


5. Sushruta Samhita by Maharshi Sushruta,Nibandhsamgraha Commentary by dalhanacharya,Edited by Yadavji T.,Varanasi,Choukhamba,2012, Chikitsasthana, Chapter 20, p.g. 479.


7. Kaiyadev Nighantu, Aushadi Varga, Edited by P.V. Sharma, Varanasi, Choukhamba Orientalia, p.g. 53.

8. Charak Samhita of Agnivesha, Charakchandrika Hindi Commentary by Dr. Brahmanand Tripathi, Varanasi, Sutrasthana, Chapter 4, p.g. 76.


10. Ashtanga Hridya of Vagbhata, Commentary by Arunadatta and Hemadari, Edited by Pt. Hari Sadasiva Sastri Paradakara, Choukhamba,2011, Uttarsthana, Chapter 24,p.g.862.


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