Research Article

PREVALENCE OF HAIR DISORDER IN ASSAM OF PATIENTS ATTENDING ROGA NIDAN OPD IN GOVT. AYURVEDIC COLLEGE, GUWAHATI DURING THE YEAR 2018

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ABSTRACT

Hair disorders are a common complaint in today's era and can be caused by a number of conditions. The ultimate aim of the study is to provide a guide for evaluating hair disorders commonly occurring in our environment. A prospective observational study was conducted from January 2018 to December 2018. Patient suffering from hair disorders of all age groups were included in the study. A prevalence study of 241 newly diagnosed cases of various hair and scalp disorders have been reported. The objective of the study is to review the prevalence of hair disorders in Assam for early diagnosis and to prevent complications. The most common disorder according to our study is *Indralupta*. Also it has been seen that many of the patients were suffering from *Mandagni Dusti*. For research and development in the field of trichology, this area bears potential and scope. It is important to note that as more number of hair related cases visit Government Ayurvedic College, it reflects that patients are getting satisfactory improvement with Ayurvedic modalities in hair and scalp related disorders.

INTRODUCTION

Hair disorder, a common complaint of today's era and caused by a number of conditions, reflected in a specific diagnosis. *Kesha* is a parameter of clinical assessment of health in Ayurveda. In addition, the problem is a prime concern in the younger generation as it is associated with more significant psychological consequence in the growing age group. Common hair problems include: hair loss, infections and disorders causing itching and scaling. Hair types are influenced by ethnic groups and this varies from region to region and subsequently this may reflect itself on the variation of common and uncommon causes of hair disorders. Therefore this study was conducted to investigate the types of hair problems in our region. Moreover it should be mentioned that patients having hair related problems mostly visit the RogaNidan OPD in Government Ayurvedic College, Guwahati. So, data has been collected from this department for the study.

MATERIALS AND METHODS

A prospective observational study was conducted from January 2018 to December 2018. Patient suffering from hair and scalp disorders of all age groups were included in the study.

Literature Review

Indralupta: Charaka mentions that *Tejas* along with *Vata* etc., *Dosha*, reaches the scalp and causes *Khalitya*.[1] According to *Susruta*, *Pitta* and *Vata* reaches the hair root to cause fall of hair and then *Sleshma* and *Shonita* obstructs the *Romakopa* preventing new hair growth, which is known as *Indralupta*, *Khalitya* or *Ruhya*.[2] Thus *Vata*, *Pitta*, *Kapha* as *Dosha* and *Rakta* as *Dushya* undergoes *Sumurchana* to cause *Indralupta*.

Vicharchika enlisted under *Kshudrakustha* is a *Tridoshajavyadhi*. It has also been stated as *Raktapradosajavikar*. *Rasa*, *Rakta*, *Mamsa* and *Kleda* are the *Dushya*. *Vicharika* is manifested in *Twak*. The features of *Vicharcika* are like *Kandu*, *Srava*, *Pidaka*, *Raji*, *Ruja*, *Vaivarnyata* etc.[3]

Palitya: Due to various causative factors *Pitta Dosha* gets aggravated which increases *Ushnaguna* in the body. *Ushmata* is carried by *Vata* to *Siropradesh* which along with *Kapha* settles over *Romakopa* and also further vitiates the *Bhrajak Pitta*. *Bhrajak Pitta* is responsible for natural colouration of hair. Vitiated *Bhrajak Pitta* causes *Akalapalitya*. *Palitya* is described as *Rasa Pradoshajavikara* by both Ca & Su.[4,5]

Dadru is included in *Kshudrakustha* by Charaka[6] whereas Susruta and Vagbhata explained it under *Mahakustha*.[7,8] It involves clinical features like *Kandu*, *Deerghapratana*, *Utsana*, *Mandala Pidakas* which is due to *Kapha* and *Pitta* involvement. *Vagbhata* especially mentioned *Dadru* as *Anusangika*.[9]

Ekakustha: The lesions in *Ekakustha* or *Charmakustha* resemble the upper layers of fish, scaly in nature and also thick, hard and rough resembling the skin of an elephant. The lesions will be devoid of sweating.[10]

Kaphaja Twakvikar are those disorders in which there is *Kaphapradhana* features like *Shvetata*, *Saityata*, *Kandu*, *Sthairya*, *Utseda*, *Gourava*, *Sneha*, *Kleba* and *Jantubhi*.[11]

Alopecia is a common condition in the practice of dermatology. Incidence is on the rise Defluvium capillorum is the first stage of alopecia. It is of 2 types Anagen effluvium and Telogen Effluvium. Hair loss can be diffuse, selective (alopecia areata), wide spread (Alopecia totale) total loss (Alopecia universalis) receding frontal hair line (traction Alopecia), from birth (congenital) accompanied with scaling (Alopecia steatoides) idiopathic and premature in males (masculine alopecia) symmetrical or loss of hair old age (senile and such).[12]

Greying of hair appears in different shades. The three main mechanisms that leads of grey hair are loss of pigment situated in the matrix of the hair, unevenness of the surface of the hair, this leads to refraction of light, appearance of air bubbles in rapidly developing canities most cases are usually chronic and inscidious.[12]

Hair may become thin short dry lustreless friable split or break easily, curl in abnormal directions. Atrophy of hair may occur due to poor nutritional state; pityriasis capitis, seborrhoeic dermatitis etc.[12]

Seborrhoeic dermatitis is a constitutional disease with disturbed sebaceous secretion. The disease usually starts on the scalp and consist of patchy or diffuse reddish area covered with fine loosely adherent greasy yellowish scales or crust. Oozing is slight unless there is complication by infection or chemical eczema. The disease is characterized by 2 types of lesion- Scaly erythematous plaques and follicular plaques.[13]

Folliculitis due to staphylococci affects the hairy region of the body i.e., beard, scalp, public region legs arms etc., characteristically the condition is seen as small superficial follicular pustules, some rupture to discharge pus, rest dry and form crust. It may be sycosis barbae (beard region) sycosis nucahe (back of neck) Sycosis lupoides (beard and scalp), folliculitis decalvans in acute and severe condition involving scalp).[14]

Psoriasis is a common chronic non-infectious skin disease characterized by well-defined slightly raised, dry erythematous macules with silvery scales and typical extensor distribution commonly affected areas are scalp elbows knees legs, lower back and trunk. lesions may occur around scalp borders (corona psoriatica), confined to palms and soles (psoriasis inverses), generalised pustule which may be complicated by arthritis, exfoliation and constitutional symptoms (pustular psoriasis), occasionally flexures like groin, axilla, infra mammary regions are involved (flexural psoriasis) involves joints selectively like rheumatoid arthritis (psoriasis Arthropathic) acute involvement (guttate psoriasis).[15]

Tinea capitis is an uncommon fungal infection of the scalp. Occipital and temporal regions are the sites of choice. There are 3 varieties- the scaly variety, kerion variety and the black dot variety. The scaly variety is the most common and is caused by microsporum.[16]

Observation

Among the 13200 patients attending the Roga Nidan OPD for the year 2018, 1086 were for hair and scalp disorders, including the 241 newly diagnosed cases, which are roughly estimated to be 8.2% of the total cases.
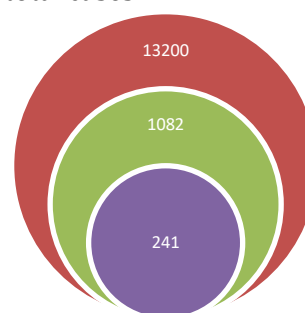
It has been noted that out of 241 patients, 129 were males and rest 112 were female patients i.e. M:F::1.2:1
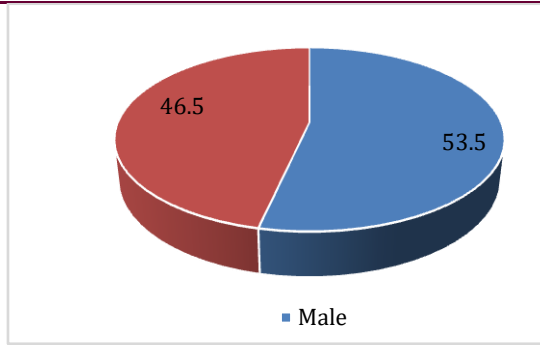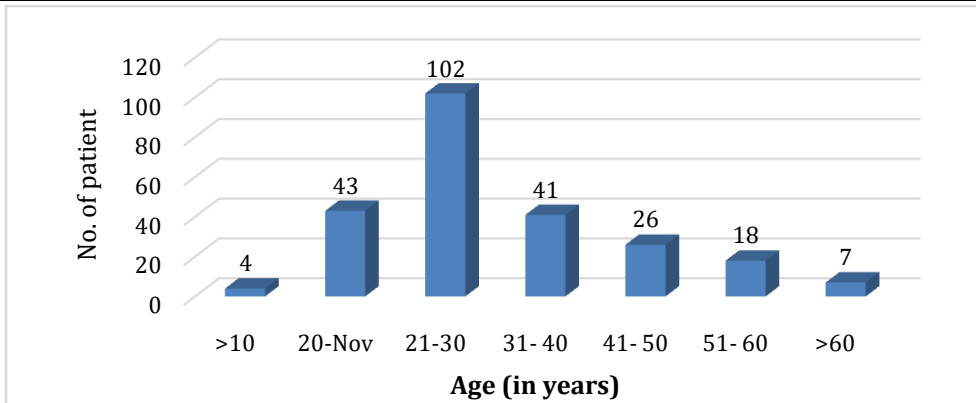
M= 129 = 53.5%, F= 112 = 46.5%

**Table 1: Patients of all age groups are included in the study**

Age (in years)	No. of patients)	% age
>10	4	1.7
11- 20	43	17.8
21-30	102	42.3
31- 40	41	17.0
41- 50	26	10.8
51- 60	18	7.5
>60	07	2.9
Total	241	

The highest prevalence of hair disorders was found among the age group of 21- 30 years, i.e. 42.3%, followed by the age groups 11- 20 years (17.8%) and 31- 40 years (17.0%) subsequently.

**Table 2: Based on *Doshaadhikya* according to various features of the reported cases**

Predominance dosa	No. of cases	Percentage
Vata	41	17%
Pitta	26	10.8%
Kapha	96	39.8%
Vata Pitta	170	70.5%
Kapha Pitta	33	13.7%
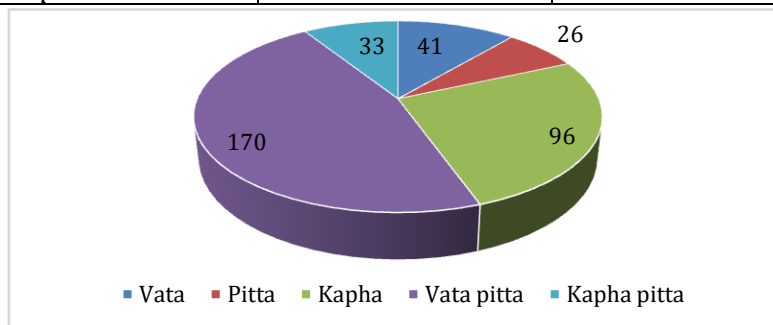
Maximum numbers of features are found to have *Vata-Pitta* predominance (70.5%), followed by *Kapha* predominance (39.8%) and then *Vata* predominance (17%). Some are found to have *Kapha- Pitta* predominance (13.7%) and *Pitta* predominance (10.8%) also.

## Table 3: According to clinical diagnosis based on Ayurvedic parameters

Vyadhi	No.	Percentage
Indralupta	111	46.1%
Kaphajatwakvikar	37	15.4%
Vicharchika	26	10.8%
Palitya	26	10.8%
Dadrukustha	20	8.3%
Ekakustha	10	4.1%
Keshapatan	9	3.7%
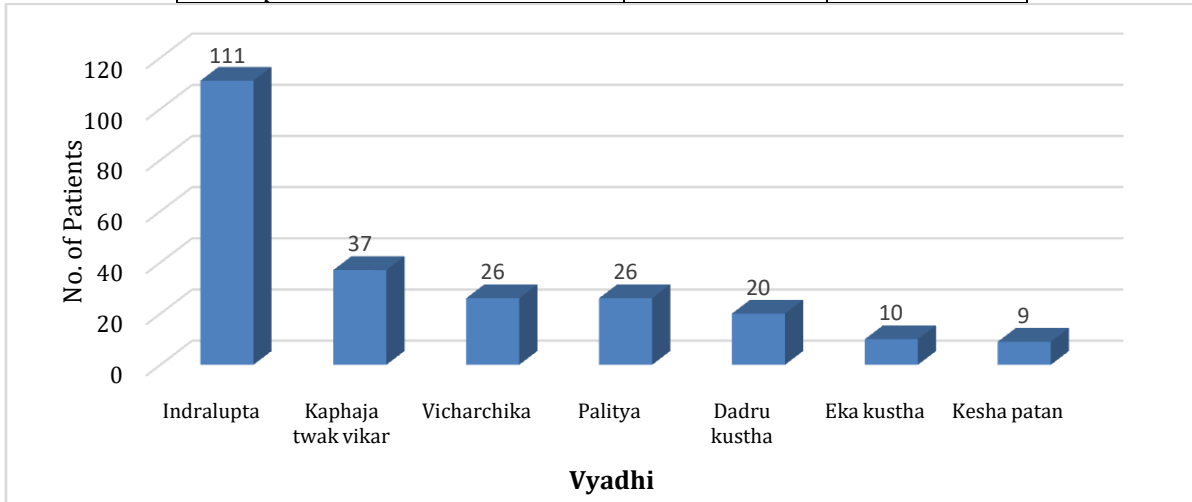
The most common clinical diagnosis is *Indralupta* (46.1%) followed by *Kaphajatwakvikar* (15.4%) then *Vicharchika* (10.8%) and *Palitya* (10.8%) Others included *Dadrukustha* (8.3%), *Ekakustha* (4.1%) and *Keshpatan* (3.7%).

Table 4: Associated conditions are as follows

Associated *Vyadhi*	No.	Percentage
Mandagni	57	23.7%
Sidhma	8	3.8%
Swasaroga	1	0.4%
Vyanbalavaishyamya	25	10.4%
Madhumeha	19	7.9%
Dadru	16	6.6%
Charmakeela	3	1.2%
Kaphaprakopakvikar	4	1.6%
No any observable associated condition	98	40%
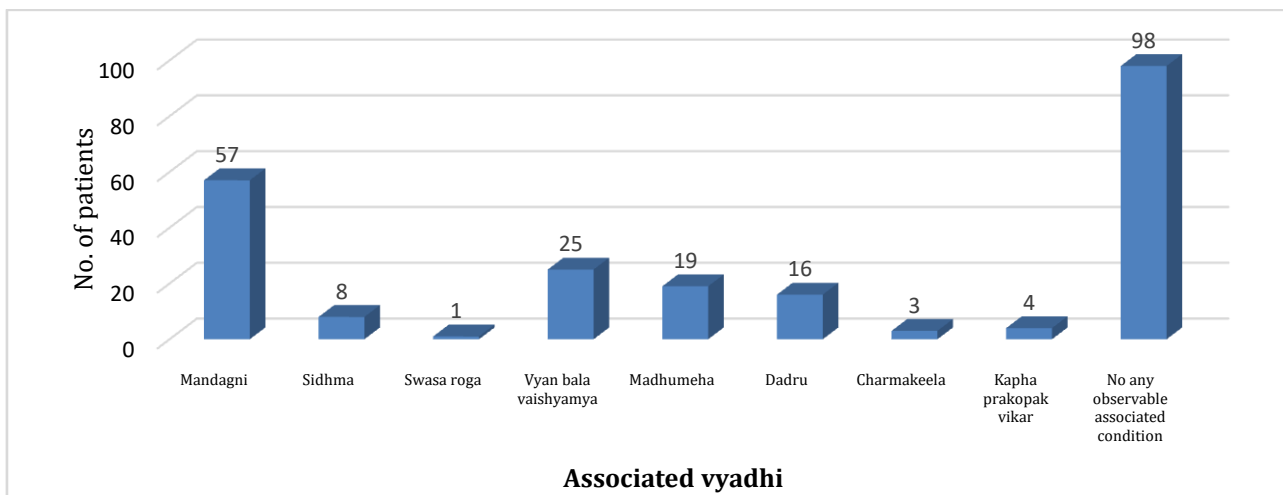
The most commonly associated condition is *Mandagni* (23.7%), then *Vyan Balavaishyamya* (10.4%) and *Madhumeha* (7.9%) subsequently. However no any observable associated condition has been found among 40.7% of the patients.

**Table 5: Based on chief complaints or signs**

Chief complaints	No.	Percentage
Hair fall	161	43.9%
Itching	96	26.2%
Flakes/ scales	41	11.2%
Bumps	33	9.0%
Grey hair	26	7.1%
Rough brittle hair	9	2.5%
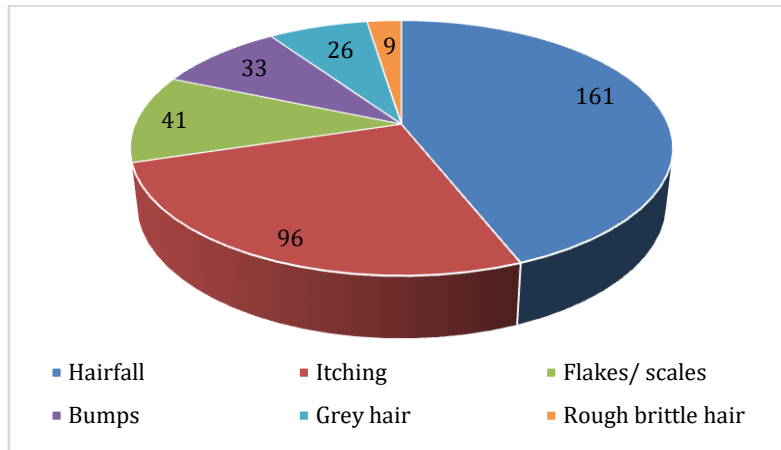
Most of the patients came with complaints of hair fall (43.9%), followed by itching of the scalp (26.2%). Rest of the complaints included scaling (11.2%), bumps around the hair root (9%), grey hair (7.1%) and rough brittle hair (2.5%).

**Table 6: Causes of hair disorders are**

Diagnosis	Numbers	Percentage
Alopecia	111	46.1%
Folliculitis	37	15.4%
Seborrhic dermatitis	26	10.8%
Canities	26	10.8%
Tinea capitis	20	8.3%
Scalp psoriasis	10	4.1%
Hair atrophy	9	3.7%
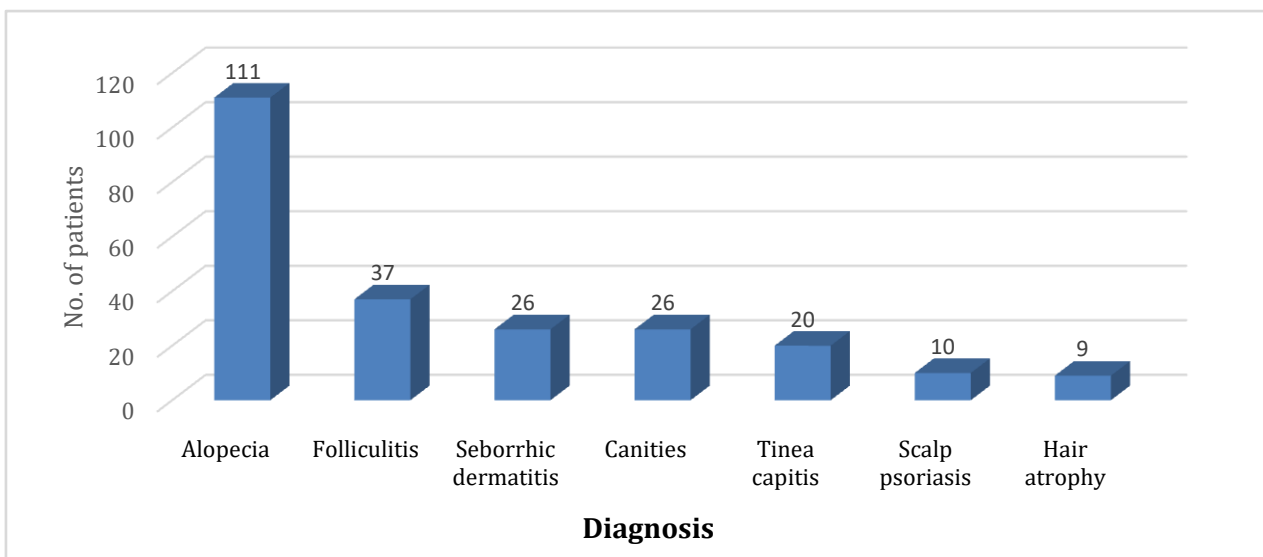
The most common hair disorders is alopecia (46.1%) followed by folliculitis (15.4%), then seborrhic dermatitis (10.8%) and canities (10.8%). Others included tinea capitis (8.3%), scalp psoriasis (4.1%) and hair atrophy (3.7%).

Table 7: Associated cutaneous and systemic diseases found are as follows

Associated condition	Numbers	Percentage
Hypothyroidism	31	12.9%
HTN	25	10.4%
Diabetes mellitus	19	7.9%
Tinea (other than capitis)	16	6.6%
Psoriasis	8	3.3%
Viral wart	3	1.2%
Bacterial infections	2	0.8%
Bronchial asthma	1	0.4%
No other known illness	126	52.3%
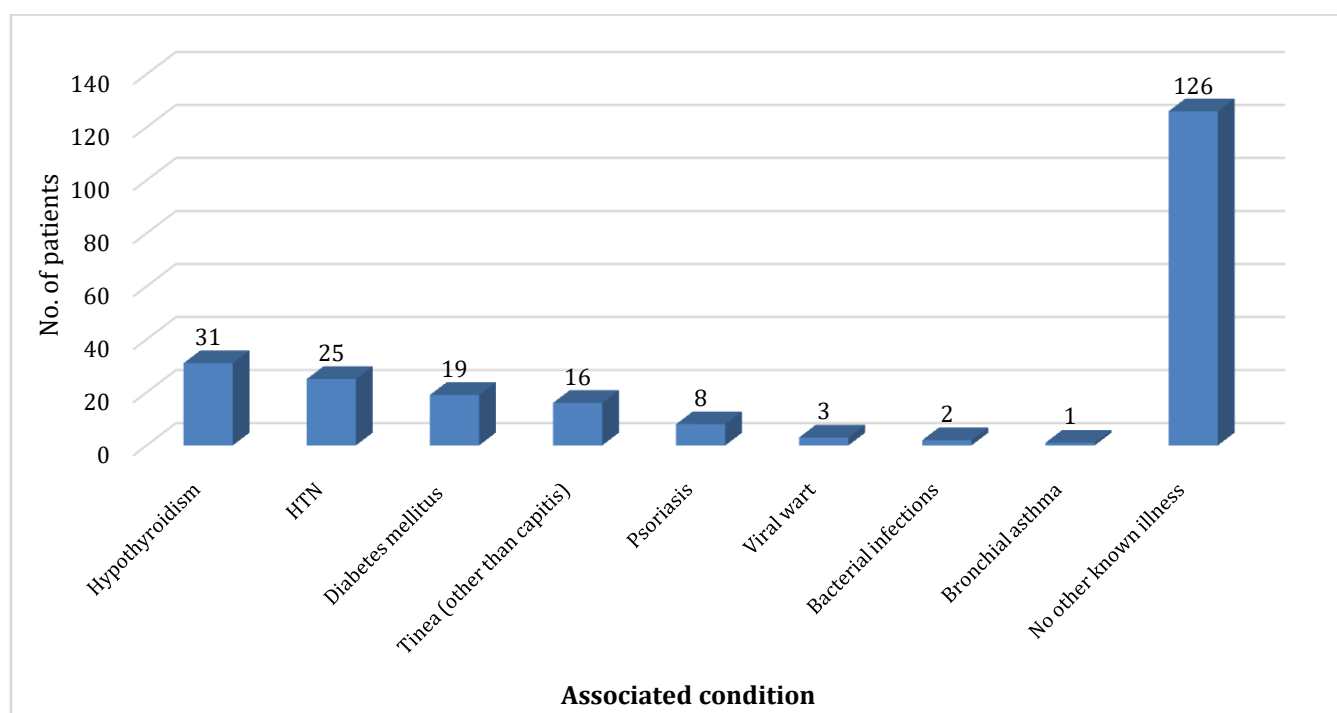
The most commonly associated condition with hair and scalp disorders is found to be hypothyroidism (12.9%) followed closely by hypertension (10.4%) then diabetes mellitus (7.9%). Tinea (Other than capitis) (6.6%), psoriasis (3.3%), viral wart (1.2%), bacterial infection (0.8%) and bronchial asthma (0.4%) are also found in some cases. Rest (52.3%) of the cases has no any other known associated illness.

DISCUSSION

A prospective observational study was conducted from January 2018 to December 2018. A total of 13,200 patients attended Roga Nidan outpatient department of Govt. Ayurvedic College in the year 2018. Out of which 1086 were reported with hair and a scalp disorders, including 241 newly diagnosed cases. The objective of the study is to review the prevalence of hair disorders in Assam for early diagnosis and to prevent complications. Data collected include age, sex, clinical presentation, scalp examination, hair examination, *Doshaadhikya*, causes, and associated complaints along with known cutaneous and systemic disease of the patients.

A total of 13,200 patients attended Roga Nidan OPD for the year 2018, of which 1086 were for hair and scalp disorders, including the 241 newly diagnosed cases i.e., 8.2% of cases are reported for hair and scalp disorders. In this study, the prevalence is seen slightly more among the male patients (53.5%). It may be due to presence of androgenic alopecia commonly in the male population which affects half the male by the age of 50 years. Also it is seen that highest prevalence of hair disorders are found in the younger generation between the ages of 21- 30 years. It may be that the

younger generation in early conscious regarding their health as well as physical appearance. So, visits the physician in early stages of the disease.

Based on various features found in the patient, the *Dosha Adhikya* for the disease is determined. Imbalanced *Vatadosa* can result in obstruction in the flow of *Ahara* Rasa that supply nourishment to *Asthidhatu* which in turn nourishes the *Kesha*, leading to dry scalp, dry hair, split ends, thin hair or hair loss. *Pitta* aggravation usually results in premature greying thinning of hair and male pattern baldness. As *Pitta Prakriti* hair is already fine and thinning, when the *Dosha* is aggravated, the scalp becomes easily visible as the fineness of hair no longer covers the hair completely. *Kapha* aggravation may lead to excessive oiliness of the scalp which could be a hot-bed of scalp infections. From our study it is seen that maximum no of patients displayed features of *Vata- Pitta* predominance then *Vata* predominance and *Pitta* predominance subsequently.

As per the Ayurvedic parameters clinical diagnosis has been made and *Indralupta* is found to be the most common (46.1%). Acharya Charaka mentions that *Tejas* by involving *Vatadidosha* when reaches the scalp results in *Indralupta*. The next common disease is the *Kaphaja Twak* (15.4%) *Vikar* which occurs due to excessive of *Kapha Dosha* especially in hot and humid climate when there is excessive sweating from the hair roots, leading to a oily scalp and provides a breeding ground for various infections. Next is *Vicharchika* (10.8%) and *Pallitya* (10.8%). *Vicharchika* is one of the *Ksudra kustha* and is included under *Rakta Pradoshaja-vikara*. According to Ayurveda, *Akalapalitya* is mainly due to vitiation of *Pitta Dosha*. A few numbers of cases are reported with *Dadura Kustha* (8.3%), *Eka Kustha* (4.1%) and *Keshapatan* (3.7%). *Dadru* is a *Kapha* dominant disease which involves *Rasa Vaha* and *Raktavahasrotas*. *Ekakustha* is a type of *Kshudraroga* and *Isvatakapha* predominant. *Keshapatan* is the degeneration of hair due to aggravation of *Vata-Pitta Dosha*. It is interesting to note that *Mandagni* is seen as the most common associated feature in people suffering from hair and scalp disorders (23.7%). Due to *Mandagni*, there is *Apakwata* of *Ahar*, which leads to improper *Dhatuposhan* when *Dhatu* is not nourished properly, there will be *Upadhatukshaya*, leading to disorders of hair and scalp.

The study reveals that many patients come with the complaint of hair fall followed by itching of the scalp. There are many causes of hair loss characterised by receding hair line. Thinning over the crown or all over the head, may eventually lead to baldness. Also hair loss is more commonly seen during the summer season. As the study suggest, the most common hair disorder is alopecia, about 46.1% of the total cases. It is basically of 3 types-alopecia diffusa, alopecia areata, alopecia universals. The next common hair disorder is folliculitis which includes a total of 15.4% of the cases, often aggravated by fungal or bacterial infections. Seborrhic dermatitis is also a common hair disorder which estimates about 10.8% of the cases, often caused due to yeast infection or on irregular response to the immune system. There is a 10.8% cases reported with premature greying of hair. Another 8.3% cases were diagnosed with tinea capitis which typically present with hair loss and may be accompanied by inflamed, scaling pustules and itching. About 4% cases are found with scalp psoriasis, which over time develops into thick crushed sores causing intense itching and hair loss. Another important hair disorder is atrophy of the hair with a prevalence of 3.7% of reported cases.

There are a number of associated cutaneous and systemic conditions which plays certain role in the prevalence of hair and scalp disorders. Most commonly associated condition is hypothyroidism. Also it has been observed that maximum patients of hypothyroidism were diagnosed with alopecia, i.e. about 27.9%. The patients suffering from diabetes mellitus are seen to be prone to develop tinea (36.8%) followed by psoriasis (26.3%), then seborrhic dermatitis (21.0%) and subsequently folliculitis (15.8%). About 80% suffering from tinea capitis has some other form of fungal infection along with.

CONCLUSION

From the study it has been observed that hair and scalp disorders are a common occurrence in Assam. Also the most common disorder according to our study is *Indralupta* followed by *Kaphajatwak Vicar*, then *Vicharika* and *Palitya*. A good number of cases of *Dadrukustha*, *Ekakustha* and *Keshapatan* have also been reported. Also it has been seen that many of the patients were suffering from *Mandagni Dusti*. It is also observed that *Vata Pitta Dosha* predominance plays an important role in the causation of this disease. The cause of occurrence of these may be disorders due to the *Desha*, *Ahara*, high humidity of the area etc. Thus for research and development in the field of trichology, this area bears potential and scope. It is important to note that as more number of hair related cases visit Govt. Ayurvedic College, it reflects that patients are getting satisfactory improvement with Ayurvedic modalities in hair and scalp related disorders.

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