Comparative Study Of Various Regimens In Alopecia Areata

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Citation

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Abstract

AIM: To compare clinical efficacy of liquid phenol (20%), Minoxidil (2 %), and oral minipulse steroid in Alopecia areata.METHOD: A randomized single blind clinical comparative study was undertaken on 51 patients of Alopecia areata .Among which 17 patients were applied liquid phenol (20%) on weekly basis, 17 patients were applied liquid phenol (20%) on weekly basis & asked to apply topical Minoxidil (2%) from second day twice daily, remaining 17 patients were given oral minipulse therapy in the form of Tab. Betamethasone (1 mg) 5 tab on Saturday/Sunday with milk along with weekly liquid phenol (20%). Patients in each group were asked to come for follow up on weekly basis till 3 months. Clinical improvement was assessed in each visit and complications were noted.RESULTS: We observed a clinical improvement of 100% in maximum no. of patients (88.23%) treated with liquid phenol (20%) with oral minipulse steroid while it was only (47.06%) and (52.94 %) in patients treated with liquid phenol (20%) alone & liquid phenol (20%) with Minoxidil (2%)CONCLUSION: As per study, combination therapy of liquid phenol and oral minipulse steroid is better than single agent used alone. Addition of Minoxidil (2%) did not affect the results markedly. Liquid phenol with minipulse steroids is more cost effective than liquid phenol with minoxidil

INTRODUCTION

Alopecia areata is a common, usually reversible condition that is characterized by a patchy loss of hair without atrophy and scarring. The disease affects both sexes equally [1, 2]. It can occur at any age but peak incidence is between 2 nd and 4 th decade [3]. Alopecia areata may cause considerable psychological and social disability in some cases particularly those with persistent disease, extensive or universal hair loss. Various clinical patterns of alopecia areata are recognized i.e. Classical patchy type, Diffuse type, Ophiasis type & Reticular type [4]. The treatment of alopecia areata is far from satisfactory due to various factors like Alopecia totalis or universalis; involvement of more than 50% of scalp hair, Ophiasis or reticular pattern, bilateral loss of eyebrows or eyelashes[5]. Recent reports indicate better response rate as well as quality of regrowth can be obtained if more than modality of treatment is used. Combination of minoxidil (5%) & antralin (0.5%) gives better results than either treatment alone [6]. Combination of topical minoxidil and steroids was superior to either use alone [7]. So our study compares the clinical efficacy of liquid phenol alone and liquid phenol with minoxidil and liquid phenol with oral minipulse steroid in alopecia areata.

MATERIAL AND METHODS

This randomized, single blind, longitudinal, clinical comparative study was undertaken in Dept of Skin and V.D., M.P. Shah Medical College, Jamnagar. The study was approved by Hospital Ethics Committee.

All patients presenting to the Dermatology O.P.D. with clinical features of Alopecia areata (circumscribed totally bald, smooth, patchy hair loss with slightly reddened or normal skin) were included in study. Patients having alopecia since birth, anemia, chronic illness, trauma, post partum alopecia, hypothyroidism and local fungal infection were excluded from the study. Thus we had selected 51 patients of alopecia areata between 5-60 years age group among which 23 were males and 28 females. The patients were clearly explained about the nature of study and a written consent was taken for their participation in study. Each patient was analyzed in detail with respect to history, clinical examination & investigations including LFT, RFT and Fundoscopy were done. The patients were divided randomly and equally into 3 groups (A, B, C) of 17 patients in each group.

Group A (Regimen 1) were applied liquid phenol (20%) on

weekly basis.

Group B (Regimen 2) were applied liquid phenol (20%) weekly with topical minoxidil (2%) from second day twice daily (Regimen 2).

Group C (Regimen 3) were applied liquid phenol (20%) weekly with oral minipulse therapy in the form of Tab Betamethasone (1mg) 5 tab on sat/Sunday with milk.

Every patient was followed up weekly for 3 months. Clinical improvement was assessed in form of size of lesion, status of hair and given grades of improvement. The patients were asked for any local or systemic complications. Fundoscopy was done every monthly and repeat LFT; RFT was done at the end of 3 months.

RESULTS

It was seen that majority of patients 28 (54.90%) belonged to 21-30 year age group. Youngest patient was 8 years old and oldest was 54 years. We found that 28 (54.90%) were females while 23 (45.09%) were males.

In maximum no. of patients i.e. 41 (80.39%) it was patchy alopecia followed by Ophiasis pattern in 6 (11.76%) and diffuse in 4 (7.84%) patients. No patient of reticular pattern was there in our study. In our study 62.75% patients were married while 37.25%were unmarried, amongst unmarried 68.42 % patients were females & 31.58% patients were males. It was seen that 16 patients were students, 13 were housewives, 11 laborers, 8 office workers & 3 were businessmen. Family history was present only in 4 (7.84%) patients.

Associated skin disease was found in 7.84 % patients which included chronic eczema(3.92%) and viltiligo (3.92%). Associated systemic disease was seen in 5.88% of patients which included asthma (1.96%), DM (1.96%), Hypertension (1.96%) and Down's syndrome.

At the end of 3 months grade 4 improvement in maximum no. of patients(88.23%) was seen in Regime 3 while only 47.06% in Regime 1 and 52.94% in Regime 2.

Amongst complications only 2 complications were noted, secondary infection and hypo pigmentation in 1 patient each.

Figure 1

Pattern Of Alopecia Areata

Pattern of alopecia	No. of patients	Percentage
Patchy	41	80.39 %
Ophiasis	06	11.76%
Diffuse	04	07.84 %

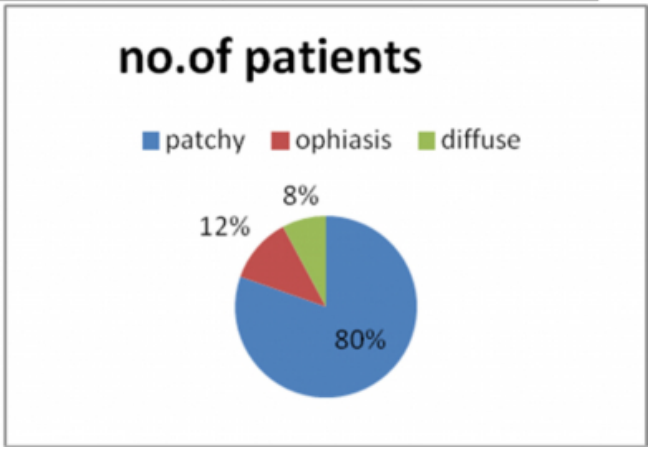
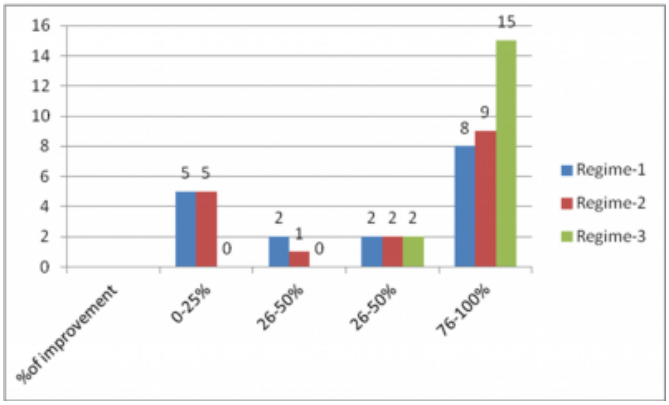


Figure 2

Improvement In Various Regimens At 3 Months

REGIME	Grading of Improvement			
	1	2	3	4
Regime -1	5 (29.41%)	2 (11.76%)	2 (11.76%)	08 (47.06%)
Regime -2	5 (29.41%)	1 (5.88%)	2 (11.76%)	9 (52.94%)
Regime -3	0	0	2 (11.76%)	15 (88.23%)



DISCUSSION

Successful treatment of alopecia areata has been a challenge for dermatologists. Treatment with liquid phenol (20%)

alone requires longer duration of therapy [8]. Topical corticosteroids have side effects of atrophy, pain and pigmentary changes. Topical Tacrolimus has side effects of various skin infections like varicella zoster, herpes simplex, warts and molluscum contagiosum and on systemic absorption it can cause flu like symptoms and headache[9, 10]. Oral daily steroid therapy has large no of side effects. Oral minipulse steroids give more clinical improvement with less systemic side effects of daily oral steroid therapy[11]. So recent reports indicate better response rates obtained if more than one modality of treatment is used. Majority of the patients belonged to 21-30 years age group, shows that the young generation which are more beauty conscious. The study showed that the females were dominated in numbers, reflects the greater cosmetic concerns amongst the females but the overall male female ratio was not markedly different shows that cosmetic issues are gaining importance in both sexes.

Study showed 62.75% patients were married and 37.25% were unmarried, indicates cosmetic concerns have gained importance in all sections, but amongst unmarried majority of patients were females, reflects that unmarried females are more stigmatized towards the condition than males. Most common pattern of alopecia areata was patchy type in our study, which can be correlated with studies by Jain S.et al. in which maximum numbers of patients were of patchy type[12]. Majority of patients had short duration of illness, which reflects the psychological impact of disease and tendency of patients to get rid of disease as early as possible.

In our study it was found that regime-3 had definite advantage over regime-1 and regime-2 in terms of (1) earlier onset of action (2) higher response rate (3) more cost effectiveness than regime-2.

CONCLUSION

As per study, combination therapy is better than single agent used alone, but addition of minoxidil (2%) did not affect the result markedly. Best result was obtained with liquid phenol (20%) with oral minipulse steroid therapy, which was more cost effective than liquid phenol with minoxidil. In terms of complications, in all the regimens complications were rare.

References

1. Gip L. Lodin A., Mollin L. : Alopecia areata- A follow up investigation of outpatient material .Acta Derm. Veereol.(Stockholm)1969;49:180-8.
2. Muller HK, Winkelmann RK :Alopecia areata. Arch. Dermatol. 1963;88:290-7.
3. D.A.R de Berker, A.G. Messenger & R.D. Sinclair : Disorders of hair, Alopecia areata.Rook's Textbook of Dermatology; 7"' edi;63.41-63.43.
4. Rook A.Common Boldness and alopecia areata.ln Rook A,editor.Recent advances in dermatology No.4 Edinburg : Churchill Livingstone;1977.P.233-47.
5. S.L.Wadhwa,Uday Khopkar,K.C.Nischal,lADVL textbook of dermatology;RG.Valia;3'd edi,vol 1,864-948.
6. Elson DM, Mc Collough ML,Bergfeld WF, Liranzo MU,Heibel M.,Eosinophils in fibrous tracts and near hair bulbs :a helpful diagnostic feature of alopecia areata. J. Am Acad. Dermatol.1997;37:101-6.
7. Fiedler VC, Alopecia areata : current therapy .l. Invest Dermatol 1991;96:695-705.
8. Savant SS, Shenoy Shaila; Chemical peeling with phenol; For the treatment of stable vitiligo and alopecia areata.lJ DVL.199;65:2;93-98.
9. Andrew N. Lin,Topical Calcineurin Inhibitors: comprehensive Dermatologic drug therapy,Stephen E. Wolverton;2"d edi,671-682.
10. Uday Khopkar, Sushil pande, KC Nischal,topical immunomodulators: Handbook of Dermatologic drug therapy;285-287.
11. JS Pasricha : Pulse therapy as a cure for autoimmune diseases. Ind. Jour. Dermatol, Venereol; Leprology.2003:69:323-328.
12. K. Vinod Sharma, Bhushan kumar, Surrinder Kaur,lndrajeet Kaur: Alopecia areata- a clinical study of 250 patients; IJDVL : 1988: 54;132-136.

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