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RESEARCH ARTICLE

TREATMENT OF SELECTED CASES OF ALOPECIA AREATA BY PSORALEN AND SUNLIGHT.

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Abstract

Background: Psoralin and ultraviolet light A is used in the treatment of alopecia areata. Response rates have varied in literatures.

Patients and methods: The thirty patients with chronic alopecia areata recalcitrant involved in this study. Their age ranged between 18-50 years were prolonged complain with no response to treatment of (3-10 years). Patients were given tripsoralen (trimethyl psoralen) tablets, Then after two hours the patients were instructed to expose to sun light for 20 minutes. Treatment was given three times per week (every other day).

Result: 18 patients (60%) showed a response with complete hair regrowth, while 4 patients (13.3%) showed partial regrowth of hair which was cosmetically acceptable, 4 patients (13.3%) the growth was only of villus hair and 4 patients (13.3%) did not show any response after 30 sessions. Only few minor side effects were observed, nausea, Headache, Pruritus this did not necessitate any special antiemetic and subsided spontaneously during the course of treatment.

Conclusions: In the current study sunlight and psoralen therapy of alopecia areata were used. Most therapies employ the use of psoralen and UVA lamp. The presence of sun light approximately all over the year in our country encourages us to use sun light instead of UVA lamps which is easier and cheaper for patients.

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Introduction:-

Alopecia areata is a patchy non scarring hair loss condition, affect any hair bearing surface especially the scalp. It affects mainly the children and young adults and both sexes are equally affected⁽¹⁾. At any given time, 0.1-0.2% of population will experience an episode of alopecia areata during their life time⁽²⁾.

In one study involving 736 patients, the relapse rate was 90% over 5 years⁽³⁾

Alopecia areata have many etiologies, genetic, immunologic factor, infection, emotional stress and intrinsically abnormal melanocytes or keratinocytes and neurological factors⁽⁴⁾.

There are many modalities of therapy, both topical and systemic acting through different mechanisms like irritants, sensitizer, immunoinhibitor as PUVA and other⁽⁵⁾.

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Tobical immunotherapy⁽⁹⁾ is defined as the induction and periodic elicitation of an allergic contact dermatitis by topical application of potent contact allergens.

Since Iraq is country of sunny climate ,in the current study the natural sunlight and psoralen used in the treatment of recalcitrant cases of alopecia areata.

Objectives:-

The present work was carried out aiming to test the effectiveness and safety of natural sun light instead of UVA lamps in the treatment of extensive alopecia areata in combination with oral psoralen.

Patients and methods:-

The current work represents a non randomized interventional trail. A total of 45 patients with chronic and extensive alopecia areata was included in the study, were 15 patients defaulted for unknown reasons , while thirty patients were able to complete the study, 17 males (56.7%) and 13 females (43.3%). All cases were chronic alopecia areata recalcitrant to different modalities of treatment ,while some patients had ophiasis of marginal scalp , and some with eyebrows and lashes , other with alopecia totalis and universalis. The treatment regimen included the administration of trimethyl psoralen (trisolen) orally , two hours later patient instructed to exposing to sunlight for 20 minutes in an open area. This is an open labeled therapeutic trial . the study was conducted in the department of dermatology and venereology of Al yarmouk teaching hospital during period from June 2010 to October 2012.

Inclusion criteria:-

1. Age: any age older than 14 years
2. Gender: both
3. Duration of symptom: any duration

Exclusion criteria:-

1. single or few patches with short history of alopecia areata.
2. Age under 14 years.
3. Family history of malignant melanoma.
4. Hepatic or renal impairment.
5. Presence of cataract.
6. Presence of light aggravated disease.
7. Patients on chemotherapy for malignant disease.

Pregnant and lactating women:-

Photography was taken before and after treatment. Monitoring complete blood picture, renal and liver function tests, ophthalmological examination was performed before treatment and after 3 months from last sessions of therapy.

Patients were given tripsoralen (trimethyl psoralen) tablets, each containing 5 mg were given orally 2-3 tablets. Then after two hours the patients were instructed to expose the whole body to sun light and wear goggles to protect the eyes from irradiation of sun. Genitalia should also be protected during the period of exposure.

Treatment was given three times per week (every other day) gradually until reach 20 minutes then continuous 20 minutes for rest of session.

The time of exposure should be between 03:00-04:00 pm then after exposure patients should stay in door for the remainder of day .

Patients continued the treatment in this regimen until obvious improvement occurred then we reduced to treatment sessions gradually were tapered and eventually session , one every 3 weeks for 3 months , if there was no improvement after 30 session , the treatment was stopped.

Follow up:-

After the last session, patients were examined every two weeks for one month , and every month for next 6 months.

Result:-

A 60% showed improvement with complete hair growth , while 13.3% showed partial growth of hair which was cosmetically acceptable.In 13.3 of patients the growth was only of villous hair .While 13.3% did not show any response after 30 sessions. The thirty patients were 17 males (56.7%) and 13 females (43.3%).

Their age ranged between 18-50 years with a mean 34.8 ± 6.5 years.

The duration of their alopecia areata lesion ranged from 3-10 years.

The number of treatment sessions required to obtain response ranged from 12-30 sessions with mean of 23.6 ± 6.9 years.

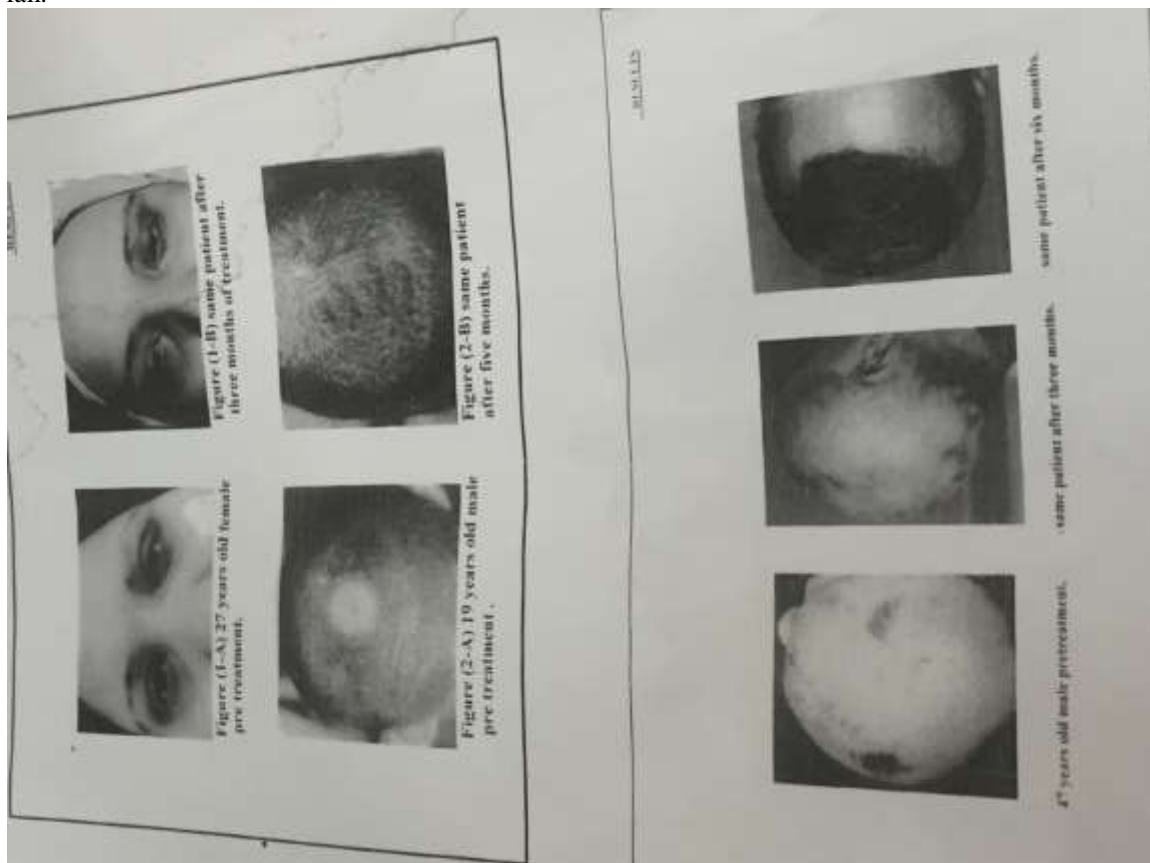
Those thirty patients , 18 patients(60%) showed a response with complete hair regrowth , while 4 patients (13.3%) showed partial regrowth of hair which was cosmetically acceptable , 4 patients (13.3%) the growth was only of villus hair and 4 patients (13.3%)did not show any response after 30 sessions.

Only few minor side effects were observed 3 patients (10%) experienced nausea after trisoralen tablets in initial phase of treatment, however this did not necessities any special antiemetic and subside spontaneously during the course of treatment .

Pruritus was observed in 2 patients (6.7%) and it was relieved by using emollient .

Headache occurred in one patient (3.3%) , and localized erythematic in 2 patients (6.7%).These side effect resolved spontaneously during the course of therapy .

After 6 months of last session , patients examined for any relapse , 14 out of 18 patients (77.8%) without relapse of alopecia areata after 6 months , these four patients showed relapse of hair fall in some patches only and not complete hair fall.



Discussion:-

Alopecia areata is an autoimmune disorder effect the hair follicle that lead to patchy hair loss of all scalp and body hair⁽⁶⁾.

24% experienced spontaneous complete or nearly complete regrowth at some stage during the observation period of 3- 3.5 years⁽¹¹⁾.

The sad fact that there is no universally proven treatment for alopecia areata which evident from the multiplicity of claims for therapeutic success.

The range of therapeutic success in alopecia areata is so wide depending on the therapy used and type of alopecia areata⁽⁴⁾. The time needed to induce hair regrowth in alopecia areata varies also , it is ranging between weeks to years.

Oral corticosteroids decrease the hair loss, but only for the period during which they are taken⁽¹⁰⁾

In the current study sunlight and psoralen therapy of alopecia areata were uses most therapies employs the use psoralen and UVA lamp causing a variety of side effects⁽⁷⁾, and recurrence rate. In our study PUVA sol was gives. Tolerated with minimal side effects in addition to relapse rate only 4 patients who showed incomplete hair loss in some areas but remained cosmetically acceptable .

PUVA sol put into practice the interaction UVA and UVB and visible light and drug.

The mode of action is believed through the photo immunologic action , it may affect T-cells function and antigen presentation , it possibly inhibit local immunological action against hair follicles by depleting langerhans cells⁽⁸⁾.

Dermoscop used in evaluation of hair loss⁽¹²⁾.

The presence of sun light approximately all over the year in our country encourages us to use sun light instead of UVA lamps which is easier and cheaper for patients.

Conclusion:-

PUVA sol is an effective method of treatment in alopecia areata with minimal side effects.

Reference:-

1. Madnis and Shapiro J. Alopecia areata update .JAM Acad dermatol,2000,42:549-66.
2. Price NH. Alopecia areata , clinical aspects, J invest Dermatol, 1991,96,685
3. Muller SA, Winkelmann RK ,Alopecia areata. An evaluation of 736 patients . Arch Dermatol. 1963Jan. 35(1):22-7.
4. Dawber RPR, de berker D and Wojharowskaf. Disorder of hair in champion RH ,Burton JL and Burn7th(Eds) Rook Wilkinson text book of Dermatology Black well scientific publications ,Boston , 2004- p,662869937.
5. Stern RS. The risk of melanoma in association with long term exposure to PUVA . JAM Acad dermatol, 2001,44,755-61.
6. Schwartz RA and Janniger CK .Alopecia Areata Cutis,1997,59(5),238-41.
7. Olsen EA. Hair disorder . In Freedberg IM Eisen AZ , Wolffk , Austen KF , Goldsmith LA ,Kat SI and Fitzpatric TB(Eds) . Fitzpatrics dermatology in general Medicine , 5th edition Mc Grow , New York , 1999 ,p71 ,729-50 .
8. Reek , Reduction of langerhans cells in human epidermis during PUVA therapy , A morph metric study . J invest Dermatology 1982 , 78 , 488 .
9. Hoffmann R, Happle R. Topical immunotherapy in alopecia areata. What, how ,and why?. Dermatol Clin.1996 oct.14(4):739-44.
10. Alopecia areata at Merck Manual of diagnosis and therapy professional Edition.
11. Vestey Jp, Savin JA. Natural history of severe alopecia areata. Br J Dermatol. 1987 oct. 117(4):531.
12. Karadag Kose O ,Gulec AT. Clinical evaluation of alopecias using a handheld dermatoscope. J Am Acad Dermatol. 2012 Aug.67(2): 206-14.

علاج داء الحاصة البقعية المستعصي بواسطة عقار السورالين واشعة الشمس

دراسة مقدمة من قبل كل من:

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في

مستشفى اليرموك التعليمي / استشارية الامراض الجلدية والتناسلية

الخلاصة:**الهدف:** لاثبات ان اشعة الشمس مع مادة السورالين كافي لعلاج حالات الثعلبية المقاومة للعلاج.**المرضى وطريقة العمل:**

ثلاثون مريضاً مصاب بداء الحاصة البقعية (داء الثعلبية) المستعصي تم ادخالهم في هذه الدراسة تراوحت اعمارهم بين 18-50 سنة كانوا من المرضى المصابين بهذا المرض لفترة طويلة من الزمن (3-10) سنوات بدون الاستفادة من جميع انواع العلاج المعروفة ضد هذا المرض .

طريقة العلاج تضمنت تعاطي عقار ثلاثي- مثيل سورالين عن طريق الفم وبعد ساعتين من اخذ العقار ينصح المريض بالتعرض لضوء الشمس لمدة 20 دقيقة كانت الجلسات العلاجية بين يوم واخر (وبمعدل 3 جلسات اسبوعياً).

اظهر 18 مريضاً (60%) تحسناً واضحاً في مرضهم. و4 مرضى (13.3%) اظهروا استجابة جزئية. و 4 مرضى (13.3%) لم يظهر لديهم الشعر النهائي ونما فقط زغب. و4 مرضى (13.3%) لم يضرهم اي تحسن بعد 30 جلسة.

الاعراض الجانبية التي لوحظت اثناء فترة الدراسة كانت قليلة جداً وبسيطة مثل الغثيان والصداع والحكة لكن هذه الاعراض اختفت بصورة تلقائية بدون الحاجة الى علاج.

النتائج:

امكن لنا من هذه الدراسة ان نستنتج ان استخدام عقار ثلاثي – مثيل سورالين مع اشعة الشمس هو علاج فعال لمعالجة داء الحاصة البقعية المزمن والمستعصي ويمكن استخدامه كبديل للعلاج الضوئي الكيماوي المعروف والذي يستخدم قناديل في كابينة خاصة التي تولد الاشعة فوق البنفسجية نوع – اي – ان توفر اشعة الشمس المحدود في بعض اجزاء العالم ادى الى استخدام هذه القناديل المولدة للاشعة فوق البنفسجية لعلاج امراض متعددة مثل اليهق والصدفية وغيرها ..

الاستنتاج:

توفر اشعة الشمس في جميع فصول السنة تقريباً في بلدنا شجعنا لاستخدام هذا المصدر للاشعة فوق البنفسجية كبديل للقناديل المولدة لهذه الاشعة فوق البنفسجية نوع – اي – وهي طريقة سهلة , بسيطة , ورخيصة ويمكن للمريض استخدامها في البيت دون حاجة للقدوم للمستشفى وترك عمله خلال اوقات معينة من الاسبوع.