Hypnotherapeutic management of alopecia areata

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Background: Only limited data exist on the role of psychotherapy in alopecia areata (AA).

Objective: We sought to document the influence of hypnotherapy on psychologic well-being and clinical outcome in AA.

Methods: Hypnosis was used in 28 patients with extensive AA who were refractory to previous conventional treatments. It was added as a complementary treatment or used as the only treatment.

Results: In all, 21 patients, 9 with alopecia totalis or alopecia universalis and 12 with extensive AA, were analyzed during a 5-year period. After treatment, all patients had a significantly lower score for anxiety and depression. Scalp hair growth of 75% to 100% was seen in 12 patients after 3 to 8 sessions of hypnotherapy. Total growth occurred in 9 of these 12 patients, including 4 patients with alopecia universalis and 2 with ophiasis. In 5 patients, a significant relapse occurred.

Limitations: This is a preliminary study with a limited number of patients. A larger randomized study is necessary.

Conclusion: Hypnotherapy may enhance the mental well-being of patients with AA and it may improve clinical outcome. (J Am Acad Dermatol 2006;55:233-7.)

Research in the last few years is contributing to a better understanding of alopecia areata (AA). AA is an organ-specific autoimmune disease mediated by T lymphocytes directed to the hair follicles, especially expressing the T-helper type 1 cytokines.[1,2] Besides autoimmunity, psychologic factors may play a role in the pathogenesis of AA. Some authors have found that acute psychotrauma, stressful events, and negative familial circumstances have been associated with the onset of AA.[1,3-5] Not surprisingly, patients with AA have other symptoms. They are at an increased risk for psychiatric disorders such as a major depression, generalized anxiety disorder, social phobia, or paranoid disorder.[6,7]

Abbreviations used:

AA: alopecia areata
AT: alopecia totalis
AU: alopecia universalis
SCL: Symptom Check List

In contrast to the comprehensive literature on the results of conventional treatment of AA, data on the outcome with psychologic treatments are very limited. Some encouraging results were described with antidepressant drugs such as imipramine[8] or selective serotonin reuptake inhibitors[9,10] and with psychotherapy.[5,11] Data on hypnosis in the treatment of AA are even scantier. Harrison and Stepanek[12] treated 5 patients with extensive AA using hypnotherapy. A cosmetic hair growth was only seen in one patient.

Randomized trials have shown hypnosis to be of value in asthma and in irritable bowel syndrome. There is strong evidence from randomized trials of the effectiveness of hypnosis for cancer-related anxiety, pain, nausea, and vomiting, particularly in children.[13] In addition, hypnotherapy has been used in a number of important skin diseases.[14,15]

Taking the psychologic factors of AA into consideration, we investigated the therapeutic effect of

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Funding sources: None.
Disclosure: Drs Willemsen and Vanderlinden are members of the board of the Flemish Society of Hypnosis.
Accepted for publication September 27, 2005.
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Published online March 21, 2006.
0190-9622/$32.00

doi:10.1016/j.jaad.2005.09.025

Table I. Hypnotherapy in alopecia areata/universalis/totalis (N = 21); dropout = 7

Sex, age, y	AA type	Other treatment during hypnotherapy	No. sessions	Result, scalp hair growth	Evolution
Significant responders (N = 12)					
F, 23	Patchy AA since 5 mo	CorticoT loc	3	100%	Minimal relapse after 6 mo
F, 36	Patchy AA since 3 mo	CorticoT IL	5	90%	Significant relapse after 8 mo
F, 24	Patchy AA since 3 mo	CorticoT IL	5	100%	Significant relapse after 10 mo
F, 50	Patchy AA since 3 mo	CorticoT IL	5	100%	Minimal relapse after 2 mo
M, 24	Patchy AA since 3 y	CorticoT IL	4	90%	Minimal relapse after 2 mo
F, 68	Ophiasis since 1 y	CorticoT IL	3	100%	Minimal relapse after 1.5 y
F, 32	Ophiasis since 5 mo	CorticoT IL	3	100%	Minimal relapse after 2 mo
F, 25	Ophiasis 3 y	Minoxidil, ditranol	7 Ongoing	90%	Ongoing
F, 66	AU since 1.5 y	None	6	100% from session 4	Significant relapse after 4 y
F, 33	AU since 1.5 y	None	During 5 y intermittently	100% from session 13	Significant relapse after 4 mo
F, 28	AU since 4 y	Acupuncture	4	100% from session 4	Significant relapse after 6 mo
F, 17	AU since 6 wk	ImmunoT loc, SSRI (Escitalopram)	8 Ongoing	100% from session 4	Minimal relapse after 2 m
Non-/poor responders (N = 9)					
M, 26	Patchy AA since 16 mo	CorticoT IL, SSRI (Sertraline)	7	50%	
F, 18	Ophiasis since 3 mo	ImmunoT loc	7	Evolution to AU	
F, 21	Ophiasis since 6.5 mo	CorticoT IL, SSRI (Sertraline)	7	Evolution to AT	
F, 35	Ophiasis since 6 mo	ImmunoT loc	5	Evolution to AT	
F, 36	AT since 14 mo	CorticoT loc	4	Vellus	
M, 25	AU since 3 mo	ImmunoT loc	16	Vellus	
F, 54	AU since 4 y	ImmunoT PO	During 3 y intermittently	10%	
M, 38	AU since 9 mo	ImmunoT loc	7	0%	
M, 15	AU since 8 mo	SSRI (Sertraline)	8	0%	

AA, Alopecia areata; *AT*, alopecia totalis; *AU*, alopecia universalis; *corticoT*, corticotherapy; *F*, female; *IL*, intralesional; *immunoT*, immunotherapy; *loc*, local; *M*, male; *PO*, oral; *SSRI*, serotonin reuptake inhibitor antidepressive medication.

hypnotherapy in a group of patients with extensive AA, alopecia totalis (AT), or alopecia universalis (AU).

METHODS

In all, 28 patients with severe AA, AT, or AU, refractory to standard treatment, were invited to take part in this open clinical trial. They were seen in an outpatient dermatology clinic (the Academic Hospital, Free University [VUB], Brussels) between April 1999 and April 2004. The study was approved by the hospital institutional review board.

All gave informed consent. Inclusion criteria included extensive (minimally 30%) scalp hair loss of at least 3 months' duration. Patients must have failed a treatment of topical or systemic steroids. Clinical evaluation, including relevant medical history, assessment of scalp involvement, and baseline photographs, was performed at the initial study visit. Hypnosis was used as the only treatment or was

Table II. Differences between Symptom Check List scores at the start and follow-up

	Normal population mean value		Prehypnosis		Posthypnosis		
	Score	SD	Score	SD	Score	SD	*P**
Anxiety	13-14.6	9.5-10.2	21.4 (21.8*)	8.7 (9.1*)	15.0 (14.8*)	4.8 (5.3*)	.01 (.01)
Depression	20.7-23.8	14.4-15.2	34.3 (34.3*)	11.7 (12.4)	22.1 (21.9*)	5.3 (6.0*)	.001 (.001)
SCL total	117-129	62.1-67.6	175.8 (178.2*)	66.6 (72.5*)	125.3 (124.2*)	32.8 (36.1*)	.001 (.001)

Wilcoxon matched pairs test (nonparametric) total group (n = 17).
SCL, Symptom Check List.
*Exclusion of patients with serotonin reuptake inhibitor antidepressive medication intake (n = 13).

added as a complementary treatment. Efficacy was graded by direct clinical examination. Hair growth was assessed on a percentage scale ranging from 0% to 100% of the total scalp surface.

Significant hair growth was defined as 75% to 100% scalp growth. Patients who interrupted their treatment after 1 to 3 sessions without clinical results were considered as dropouts. All responders were followed up for a minimum of 6 months (range 6 months-6 years). Scalp hair loss during follow-up was defined as minimal (<25%) or significant (>25%) relapse.

Hypnotic technique

Hypnosis can be used for general relaxation and ego strengthening. Moreover, it can be oriented to a specific symptom.[15] In our hypnotic AA approach, hypnosis was introduced by means of relaxing suggestions. After the hypnotic induction, patients were invited to visualize a place where they felt safe and secure. In addition, symptom-oriented suggestions were given (eg, to imagine the healing effects of the warmth of the sun on the skin of the scalp). Patients were invited to find a personal metaphoric or symbolic image of their growing hairs. Patients who showed symptoms of social phobia or agoraphobic reactions (avoiding public places because they felt ashamed with their hair loss) received additional suggestions for improving their self-esteem.

By doing so, we tried to attenuate the negative feelings such as shame, embarrassment, low self-esteem, and anxiety experienced in public places. Hypnotic sessions were held once every 3 weeks. All patients were asked to practice self-hypnosis twice a week.

To illustrate our hypnotherapeutic approach, a hypnotic relaxation and symptom-oriented approach for one particular patient with AA is included (Addendum).

Questionnaires

To measure the result of the hypnotherapeutic interventions on the patients' well-being, the Symptom Check List (SCL)-90,[16] translated and validated in Dutch by Arrindell and Ettema,[17] was administered. This tool measures, besides a total psychoneuroticism score, 8 different psychologic symptoms (ie, phobia, anxiety, depression, somatization, psychoticism, interpersonal sensitivity, hostility, and sleep problems) and has good reliability and validity. In this study only the total score and two subscale scores, namely anxiety and depression (the most disturbing psychologic characteristics in patients with AA), were taken into consideration. Analyses were carried out using software (Statistica, Version 6.0, StatSoft, Inc, Tulsa, Okla). The scores on the SCL-90 were compared at the start and the end of the hypnotic treatment using Wilcoxon matched pairs test (nonparametric) for dependent samples. The level of significance was set at P less than .05.

RESULTS

A total of 28 patients (10 male, 18 female) were enrolled in the study. Patients ranged in age from 15 to 66 years (mean 33.4 years). In all, 7 patients withdrew because of lack of motivation; 21 patients completed the treatment. There were 8 AU, 1 AT, 6 ophiasic, and 6 patchy AA cases. For patients with patchy or ophiasic AA, duration of the current episode ranged from 3 months to 3 years (mean: 10 months) whereas duration for AT or AU ranged from 3 months to 4 years (mean: 19 months). More details including additional conventional treatment are given in Table I.

The data of SCL-90 subscales could be analyzed in 17 of 21 patients. Results at the last session (Table II) show a significant decrease on both the total SCL-90 score ($P < .001$) and the two subscales of anxiety ($P < .01$) and depression ($P < .001$). Of these 17 patients, 4 were treated with a serotonin reuptake inhibitor during their hypnotic treatment. Exclusion of their questionnaires yielded the same significant decrease in all scores for the 13 remaining patients.

Significant hair growth was found in 12 patients (Figs 1 and 2) after 4 to 13 (mean 5.5) sessions of

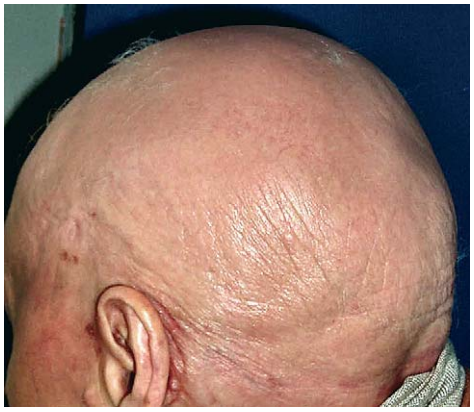

Fig 1. A 68-year-old woman with alopecia universalis. Regrowth of vellus hair from fourth hypnotic session. No other treatment was used.

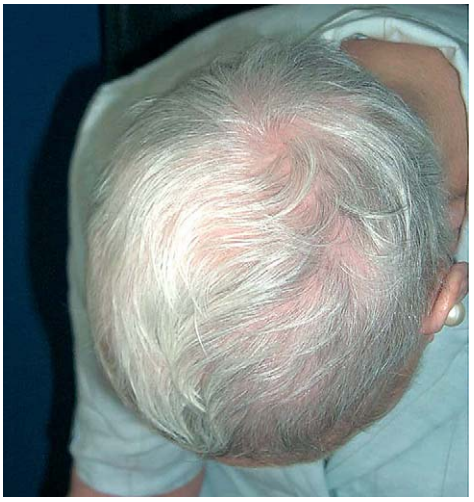

Fig 2. Evolution to generalized hair regrowth.

hypnosis. Total growth of scalp hair occurred in 9 of these 12 patients, including 4 patients with AU and 2 with ophiasis. The treatment was unsuccessful in 9 patients. Adverse events of the hypnotic treatment could not be detected, nor were they reported by the patients. Minimal relapses were observed in all significant responders. Five of them showed a significant relapse in a follow-up period ranging from 4 months to 4 years (range 10.4 months) posttreatment. Of these 5 patients, 4 returned to the pretreatment status.

DISCUSSION

The efficacy of hypnosis in AA is still controversial. The clinical results of this study must be interpreted in light of several limitations. First, most of our patients received hypnosis in addition to another treatment as a result of ethical considerations. Therefore, it is not possible to evaluate how much of the changes and improvement in the hair growth was caused by the hypnotic interventions. Secondly, because a control group is lacking, it is not possible to evaluate the benefit of incorporating hypnosis into the treatment of this often therapy-resistant disease. A randomized controlled trial with a sufficient number of patients is indicated before this question can be answered. Despite these limitations, our first observations are encouraging. Hypnotherapy significantly improved the psychologic well-being of our patients. After treatment, all patients had a significantly lower score for anxiety and depression and a lower total SCL-90 score. Results were statistically significant. Moreover, in our study, hair growth was observed in forms of AA that are mostly refractory to treatment. A significant response occurred in 3 of 6 patients with ophiasis and in 4 of 7 patients with AT/AU. Full recovery from severe forms of AA is unusual. Only 17% of AT/AU respond to contact immunotherapy and fewer than 10% of those with ophiasic disease and AT/AU respond to pulsed corticosteroids.[18] Our most surprising result was observed in 4 patients with AU who had a total growth shortly after the start of the hypnotic sessions. All 4 patients had previously failed to respond to topical immunotherapy.

The exact working mechanism of hypnosis in AA has not been elucidated, nor is it understood yet.[14,19] Some researchers[20,21] have demonstrated by thermography that the hypnotic suggestion to improve the blood flow in the skin of the scalp was associated with an objective increase in blood flow and an increase in skin temperature of the scalp. In addition to this hypothesis, we assume that hypnosis could lead to a change in cytokine expression by lymphocytes leading to a local immunomodulation. However, until today, data on the influence of hypnotic interventions on cytokine production are very scarce.[22]

Our results indicate that a limited number of hypnotic sessions do not prevent relapses of the disease. It is not known whether the combination of long-lasting hypnotherapy, eventually with an additional serotonin reuptake inhibitor, will be more effective in these treatment-resistant diseases. This will be the subject for future research. We conclude that these preliminary results indicate that a larger and randomized study would be useful in evaluating the benefit of hypnotherapy in severe cases of AA.

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ADDENDUM

Case illustration

Hypnosis as means of relaxation and a symptom-oriented approach. *The woman who was upset by the failure of her conventional treatment.* A 66-year-old woman had her first AA outbreak 8 years earlier. She perceived this event as a consequence of a very painful divorce. Recently, when she was confronted with the divorce of her daughter, she felt very tense again. A new outbreak of AA resulted this time in AU (Fig 1). She was treated with local diphenylcyclopropenone for 6 months but unfortunately she had to stop this treatment because of a severe local itching and painful allergic reaction on the scalp. The failure of this conventional treatment, which had been her last hope, made her very upset. She felt continuously stressed and had insomnia. She was referred for hypnosis. Hypnosis was induced by means of relaxing suggestions. After hypnotic trance was induced, we asked her to imagine herself being on a quiet beach by the sea. The patient was invited to feel the warmth of the sun on her scalp and we further suggested that this feeling would result in improved scalp blood flow. We asked her to visualize her empty hair follicles and to imagine new hair growth on her scalp. After 4 sessions, the beginning of growth of tiny vellus hairs all over the scalp was observed, resulting in a generalized new hair growth after only a few more sessions (Fig 2).