

Telogen effluvium treated with *Serenoa repens* supplement

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Abstract

*Telogen effluvium is a non-scarring form of hair loss. Clinically, the disease is characterized by hair loss where more than normal amounts of hair fall out; it usually affects the whole scalp in a widespread manner. When hair loss is very pronounced and persists for a long time, alopecia becomes clinically evident. It is not associated to subjective symptoms. In this paper, the authors describe the clinical case of a 67-year old patient suffering from telogen effluvium, treated with a supplement containing amino acids (L-cystine and L-methionine), vitamin E, iron and extract of *Serenoa repens*.*

Keywords: *Telogen effluvium, Serenoa repens*

1. Introduction

Telogen effluvium is a non-scarring form of hair loss characterized by diffuse hair loss. It is often the result of the sudden cessation of an anagen stimulus, e.g. at the end of a pregnancy, the suspension of estroprogestin therapy, the discontinuation of treatment with minoxidil and, probably, also the end of summer.

Hair loss can also be caused by an abrupt abandonment of the anagen phase due to exposure to certain chemicals, such as cytostatic drugs (e.g. Methotrexate), anticoagulants (e.g. Heparin), beta-blockers (e.g. Propanolol); antiparkinsonian drugs (e.g. Levodopa); and hypoprolactinaemic drugs (e.g. Bromocriptine). Other causes of telogen effluvium are: high fever, rapid weight-loss diet and iron deficiency [1, 2]. Clinically, the disease is characterized by a hair loss where more than normal amounts of hair fall out; it usually affects the whole scalp in a widespread manner. When hair loss is very pronounced and persists for a long time, alopecia becomes clinically evident. Chronic forms do not include those caused by malnutrition, protein malabsorption, protein deficiencies, endocrine disorders

such as hypothyroidism and deficiencies of iron and zinc [3, 4, 5].

The objective of this study is to evaluate the use of *Serenoa repens* supplement in a patient suffering from telogen effluvium.

2. Material and Methods

In this paper, the authors describe the clinical case of a 67 year old patient who reported severe hair loss since four years. The patient performed unspecified topical therapies with poor clinical results. When the patient arrived at our hospital, an accurate anamnesis was taken in order to identify possible triggers, such as dieting and/or use of some medications. The patient was visited, photographed (Fig. 1), trichoscopy was performed (Fig. 2) and blood and instrumental tests listed in table 1 were carried out. The pull test was positive (about 20 hairs). Blood tests ruled out problems related to internal medicine (e.g. hypoferritinemia, thyroiditis, etc.) [6,7,8]. The patient had a 10-year history of hypertension, treated with enalapril maleate at a dose of 5mg daily. On the basis of anamnestic, clinical and instrumental data, a

diagnosis of telogen effluvium was made.



Figure 1. Patient before therapy.

The patient was given a cheratotropic supplement based on amino acids (L-cystine and L-methionine), vitamin E, iron and vegetable extract of *Serenoa repens*, administered in two tablets a day, for a period of six months.

3. Results

Clinical evaluation after 6 months of therapy showed a significant improvement (Fig. 3); trichoscopy (Fig. 4) showed an increase of hair in the anagen phase and the pull test was negative. After six months of therapy, the patient showed a marked improvement of the clinical picture, as shown in fig. 3.



Figure 2. Videodermatoscopy before therapy.

4. Discussion

Telogen effluvium is a non-scarring form of hair loss

characterized by diffuse loss of hair [6].

It is often the result of the sudden cessation of an anagen stimulus, e.g. at the end of a pregnancy, the suspension of estroprogestin therapy, the discontinuation of treatment with minoxidil and, probably, also the end of summer [9].



Figure 3. Patient after therapy.

Hair loss can also be caused by an abrupt abandonment of the anagen phase due to the exposure to certain chemicals, such as cytostatic drugs (e.g. Methotrexate), anticoagulants (e.g. Heparin), beta-blockers (e.g. Propanolol); antiparkinsonian drugs (e.g. Levodopa); hypoprolactinaemic drugs (e.g. Bromocriptine). Other causes of telogen effluvium are: high fever, rapid weight-loss diet and iron deficiency [2, 7, 10]. Chronic forms do not include those caused by malnutrition, protein malabsorption, protein deficiencies, endocrine disorders such as hypothyroidism and deficiencies of iron and zinc.



Figure 4. Videodermatoscopy after therapy.

Table 1. Blood and instrumental tests performed on the patient.

Blood count
Serum iron, ferritinemia, transferrinemia
ESR, ASO-test, CRP
AST, ALT, gamma GT
Blood nitrogen and creatinine
FT3, FT4, TSH, anti-thyroglobulin Ab, anti-thyroperoxidase ab
DHEAS
Abdomen and thyroid ultrasound

The therapy consists of removing the causes of the disease [9, 8, 10]. The case here described showed no clinical or instrumental findings of internal diseases that could be the cause of telogen effluvium. Therefore, a cheratotropic supplement based on amino acids (L-cystine and L-methionine), vitamin E, iron and vegetable extract of *Serenoa repens* was administered, with two tablets a day, for a period of six months.

4. Conclusion

It is well known that cystine and methionine have been

used in trichology for a long time. Cystine is an amino acid with high molecular weight, characterized by high sulphur content (27 %), superior to all the sulphur-containing amino acids, with a very stable SS bond which, used in the structure of keratins, gives strength and resistance. Methionine is another sulphur-containing amino acid used in keratinization disorders. It appears to lower the effectiveness of cystine and recently proved to be easily converted to cystine in the presence of vitamin B12 and/or folic acid. *Serenoa repens* is used less than cystine and methionine in trichology [11,12]. It is a plant also known as Saw Palmetto. Its berries produce a preparation with anti-androgen activity, which can reduce the production of dihydrotestosterone. It works like finasteride, although there are a few studies that clearly explain its mechanism of action [13]. In the case described, the patient benefited from the use of this supplement based on amino acids (L-cystine and L-methionine), vitamin E, iron and extract of *Serenoa repens*. Further studies are needed to assess the effects of this plant in telogen effluvium.

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