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Chronic Telogen Effluvium

What is Chronic (Idiopathic) Telogen Effluvium or "CTE"?

- CTE one of a group of disorders known as "hair shedding" conditions

What are the symptoms of Chronic Telogen Effluvium?

- Individuals with CTE notice hair shedding.
- The amount of hair loss varies from day-to-day. On some days, over 300 hairs may be lost, whereas on other days, 40-50 hairs will be lost
- Individuals will report excessive hair in their brush, hair falling on clothes, clogged shower drains and plugged vacuums
- Some individuals have scalp symptoms such as tingling or pain
- Hair loss occurs all over the scalp, but is often marked in the temples

What tests will be needed to diagnosis Chronic Telogen Effluvium?

- Dr. Donovan may ask you to obtain several blood tests to make determine if you have any easily correctable causes of hair shedding
- One or more biopsies of your scalp may be obtained
- You may or may not also be requested to perform a "Hair Collection" at home.

What is the treatment for Chronic Telogen Effluvium?

- There are no cures for CTE.
- The following treatments may prove helpful to reduce the amount of shedding you have. Dr. Donovan will review these with you and whether or not you might benefit
    - Minoxidil 5 % lotion applied daily
    - L-lysine – 500 mg tabs used twice daily
    - Low level laser therapy, Platelet rich plasma therapy
    - Vitamins, Biotin

What is the long term effect on my hair if I have Chronic Telogen Effluvium?

- Individuals with CTE never go bald
- Hair shedding can continue for many, many years, but hair shedding eventually stops.
- The reasons for this are not well understood at the present time.
- If a patient has not developed a second hair condition during this time, hair density will return to the original density.

Dr. Donovan – 7 Articles on CTE

ARTICLE 1. DO I HAVE CHRONIC TELOGEN EFFLUVIUM (CTE) ?

What is CTE?

Hair shedding problems are among the most challenging of the hair disorders. They can be challenging to diagnose. Patients with shedding problems are the most frustrated of all patients with hair loss looking for a diagnosis because they receive so many different opinions.

Both my friend and mom think it's stress.

One dermatologist said it's genetic hair loss another said low iron

My naturopath said it's a thyroid problem even though my TSH is normal

Chronic telogen effluvium (CTE) is a real and true hair shedding problem

CTE is a true hair loss problem. IT's not a diagnosis that women get when all other diagnoses have been exhausted. Patients with CTE often look like they have tremendous amounts of hair. Patients with CTE who tell their friends they are going to see a hair specialist, will immediately hear "why would you do that ?

.... your hair is great." Patients with CTE often start out with tremendous amounts of hair (and often joke that hair stylists once complained that they had too much hair). Patients with CTE have good days and bad. Good weeks and bad weeks. Some weeks they lose 50 hairs a day and some days 400 hairs per day. Surprisingly (despite this loss), these patients never go bald. They reach a new plateau of hair density and maintain that for years. Patients with CTE are usually 35-70. They may have scalp symptoms like scalp "pins and needles" or "burning" or "tingling" - this often confuses things tremendously! It's unusual to have TE at younger ages.

Do I have CTE or AGA?

A common question form patients is "Do I have CTE or AGA?" Of course the only way to confidently figure that out is to have a full examination. But patients who walk into the office with 1) concerns about tremendously increased daily shedding all over the scalp AND 2) look like they have a lot of hair and 3) have normal blood test results are the typical patient with CTE. Usually the scalp is NOT showing in patients with CTE. The patient who walks into the office with hair thinning to a degree that the scalp IS showing is more likely to have AGA. Usually women with AGA have hair loss more concentrated in the front and middle of the scalp. Patients with CTE have hair loss all over.

Treatments for CTE

Treating CTE requires patience. There is no cure but there are treatments than can help. These include

1. Minoxidil (Rogaine)

2. Low level laser therapy (LLLT)

3. Platelet rich plasma (PRP)

4. Supplements (vitamins, biotin, VIVISCAL, Priorin)

5. Lysine

The precise 'starting treatment' depends on a number of factors.

ARTICLE 2. CHRONIC TELOGEN EFFLUVIUM

Chronic telogen effluvium or "CTE" is one of the simplest yet most complex conditions.

Patients with CTE are usually 35-70 years old with sudden onset of hair shedding. 300, 400 or 500 hairs are lost on some days yet 40, 50 or 60 are lost on other days. A trigger most often can't be identified. Blood tests are normal. Hair density looks high to a casual observer. Individuals with CTE often had incredibly high density - so high at one time that most patients joke that they were initially glad when the shedding first happened because their hair was just much too thick. Many affected patients recall a time long ago when their hairdresser would sigh at every appointment because they knew the appointment would take soo long in account of all the hair volume and density the patient once had.

This is CTE.

CTE is not shedding that happens with low iron. CTE is not shedding after crash diets or massive stress. This is a completely different (although similarly sounding condition) called acute telogen effluvium). Great confusion exists between CTE and acute TE.

The exact cause of CTE is not known which makes treatment challenging. Options such as vitamins, biotin, hair and nail supplements, laser, PRP, anti-androgens can be tried.

The hair science world has devoted little attention to this condition and more research is needed. More research is also needed to create drugs that block a hair follicle's ability to leave anagen (the growth phase). Although this might not solve the underlying reason for this condition, such drugs would be useful for an array of conditions including CTE, acute TE, AGA, and alopecia areata.

ARTICLE 3: Chronic Telogen Effluvium and Androgenetic Alopecia are Separate Conditions

Chronic telogen effluvium ("CTE" for short) is a hair shedding condition that occurs in women age 35-60 years. Often women have extremely thick hair to begin with. Affected patients often look like they have a lot of hair, even though they may have lost considerable amounts.

Does CTE turn into AGA?

So does chronic telogen effluvium "turn into" AGA? This is a common concern among patients. For most patients, the answer seems to be no. It appears that many patients who shed, especially women over 50, don't go on to develop genetic hair loss. They simply shed.

A nice study by Australian dermatologist Dr Rodney Sinclair followed 5 patients over a period of 7 years. Patients were photographed year after year after year. In 4 of the 5 patients (in other words 80 %) there was no change in the overall density between year 1 and 5. Only 1 patient developed androgenetic alopecia during this time.

Overall, it appears that for most women with CTE, the norm is not to develop androgenetic alopecia. The norm is to keep shedding.

Article 4: Multiple biopsies may be needed

Chronic telogen effluvium (CTE) is a chronic hair shedding condition. It typically occurs in women between the ages of 35-60. It is uncommon among men and younger women.

Chronic telogen effluvium is often misdiagnosed, especially in younger women where the presence of increased daily hair shedding so often represents a diagnosis of early genetic hair loss rather than chronic telogen effluvium. Of course, there are exceptions.

Patients are often surprised to hear of the challenges that can exist when one attempts to use a scalp biopsy as the sole means to diagnose CTE. First a scalp biopsy needs to be performed using "horizontal" (transverse) sections rather than vertical sections. This is the only means to get a sense of the ratios of terminal (thick) and vellus (thin) hairs. In CTE, the terminal to vellus ratio (T:V ratio) is often above 8:1 whereas in androgenetic alopecia, it is frequently less than 4:1. If the pathology lab does not process biopsies via horizontal sectioning, one can only get limited information from the scalp biopsy as far as the diagnosis of CTE goes.

Second, if one does perform horizontal sectioning of biopsies, one needs to be aware that more than one biopsy sample might be needed to get an accurate diagnosis.
In 2004, Sinclair et al compared biopsies of 305 women who had 1 horizontal section biopsy vs 207 women who had 3 biopsies done. The key point was that performing multiple biopsies increased the accuracy. With one biopsy, an accurate diagnosis could be confidently made 79% of the time. With 3 biopsies, an accurate diagnosis could be made 98 % of the time.

Conclusion: People with suspected hair loss must be open to the potential that more than one biopsy may be needed to definitively confirm the diagnosis of challenging scalp hair loss presentations. The clinician must also use his or her clinical expertise to assist in formulating a diagnosis.

Reference
Sinclair R, et al. The reliability of horizontally sectioned scalp biopsies in the diagnosis of chronic diffuse telogen hair loss in women. J Am Acad Dermatol. 2004.

Article 5: TE vs CTE

There are a lot of misconceptions about telogen effluvium (sometimes called acute telogen effluvium or just "TE") and chronic telogen effluvium or "CTE". They are very different conditions.

TE is extremely common and occurs in all ages. It's often results from one or more of the four big categories of 'triggers' - low iron, stress, endocrine problems (thyroid problems) and medications (especially birth control). However, in one half of cases, the cause is not found. Blood tests are often abnormal in TE and so everyone with TE needs blood tests.

What about CTE? There is quite a bit of misunderstanding even among physicians about CTE. Some physicians call it when the TE simply goes on more than 6 months. I think that's wrong. For example if you have low iron and develop shedding of hair, we call it 'acute telogen effluvium'. If it goes on for 7 months and the iron has not been replaced then I strictly call it "acute telogen effluvium" from low iron that has not yet been addressed. I don't simply call it CTE once it passes the 6 month mark. CTE is a condition unto itself.

CTE develops in women 35-60 who often had massive amounts of hair at one time. These women develop shedding when all the blood tests you can order are just perfect. This is CTE. The temples can show recession more than other areas and some days have lots of shedding and other days not so much. Many women with CTE have symptoms (burning, tingling, crawlers). CTE is not just TE that passes the 6 month anniversary. CTE is very different! Women with CTE once had massive amounts of hair and even when they lose a lot of it - it still looks like they have a lot of hair.

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Article 7: CTE vs AGA - easily confused but different conditions

CTE and AGA are often easily confused. Labs normal in both. Family history of hair loss similar in both. Hair check similar in both. Biopsy often unhelpful unless done properly (meaning transverse sections and measurement of terminal to vellus ratios).

CTE takes time to figure out. Info on family history of AGA is not useful at all in diagnosing AGA in women. AGA doesn't start in the 50s in women. All in all, you'd need a careful examination. CTE is the most challenging of diagnoses.

FEATURES OF CTE

1. CTE leads to fluctuations in shedding with shorter breaks
2. Women often once had thick hair (very thick)
3. Miniaturization not typical
4. Onset is sudden

5. Scalp sensations (tingling, burning) often present

6. Pretty normal looking scalp exam or maybe significant temple recession in some

7. Labs normal

8. Some days 50 hairs lost; some days 350-400

9. After 6-8 months, tends to reach a balance between shedding and growing and patients look similar month after month (despite massive shedding!!!)

10. Biopsy done with horizontal sections show terminal to vellus ratios above 8:1 (whereas less than 4:1 for AGA)

11. Central part width not typically widened in CTE

CONCLUSION

I understand how tough it is to get a diagnosis of CTE vs AGA. But they are very different conditions.