

Clinico-Epidemiological Aspects of Telogen Effluvium In Iraqi Women

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Abstract:

Background: telogen effluvium is a form of non-scarring alopecia characterized by diffuse hair shedding, often of acute onset. It's a reactive process caused by metabolic or hormonal stress or by medications. Generally, recovery is spontaneous within 6 months.

Objectives: is to shed a light on the clinic-epidemiological aspects and most important causes of telogen effluvium in Iraqi women.

Patients and methods: A total number of 100 female patients were seen in the period between March 2014 to March 2015 in the Dermatology Department of Baghdad Teaching Hospital / Medical City. Their ages ranged between 20 to 40 years old and the duration of their complaints ranged between 1 to 12 months. Their symptoms were excessive hair loss, diffuse shedding, scalp hair thinning and trichodynia. In all patients the diagnosis was confirmed by positive pull test, and the patients were questioned about all possible triggering factors.

Results: In most of cases, 74%, the duration of illness was less than 6 months. All the patients complained of diffuse shedding, 12% had visible scalp thinning and only 8% had trichodynia. In 32% of cases no underlying triggering factor was identified and 21% of cases had acute psychological distress.

Conclusion: most of cases of telogen effluvium in Iraqi women were without clear underlying triggering factor, most patients were anxious about impending baldness, but significant hair thinning was present in only minority of patients.

Searching for underlying iron deficiency is important as 6% of patients had evidence of subclinical iron deficiency on laboratory examinations.

Key words: telogen effluvium, triggering factors.

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Introduction:

Telogen effluvium is a form of non-scarring alopecia characterized by diffuse hair shedding, often with acute onset. A chronic form with more gradual onset and longer duration also exists (1,2). It's a reactive process caused by metabolic or hormonal stress or by medications. Generally, recovery is spontaneous and usually occurs within 6 months (1,2). It can affect hair on all parts of the body, but generally only loss of scalp hair is symptomatic (1).

Telogen effluvium is triggered when a physiologic stress or hormonal changes cause large number of hair follicles enter the anagen at same time. The interval between the inciting event and the onset of shedding corresponds to the length of telogen phase between 1 and 6 months, average 3 months (2,3).

Morbidity in telogen effluvium is limited to mild cosmetic changes, however, it may cause significant psychological impact and sometimes associated with trichodynia (4,5). The hair is lost diffusely from the entire scalp, however, complete alopecia is not seen (1).

Careful questioning may reveal a metabolic or physiologic stress 1 to 6 months before the start of hair shedding. Main

physiologic stressors that can induce telogen effluvium include febrile illness, major surgery, severe diet, pregnancy and delivery, and some medications (6,7,8,9,10,11,12,13).

Physical findings on examination are sparse and usually the examining physician does not appreciate a decrease in hair density, however in patients complaining of hair fall for several months hair may appear thin when compared with old photographs (1). In active telogen effluvium the gentle hair pulling test will yield positive results, where increased number of club hairs come out from the roots upon gentle pulling, and when active shedding has stopped, hair pulling test will return to normal again and not positive any more (2).

Patients and methods:

A total number of 100 female patients were seen in the period between March 2014 to March 2015 at the Department of Dermatology and Venereology of Baghdad Teaching Hospital / Medical City. Their ages ranged between 20 to 40 years old and the duration of their complaints ranged between 1 to 12 months. Their complaints were excessive hair shedding of recent onset.

All patients included in this study were in whom the diagnosis of telogen effluvium was confirmed clinically by positive pull

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test for club hairs. The test was performed by pulling a small bundles of hairs separately, each bundle consists of about 20 to 30 hairs, the strength of pull was to the degree of inducing moderate discomfort to patient, and when more than 2 club hairs come out with each bundle the test is considered positive. Patients with negative pull test were excluded because of unconfirmed diagnosis of telogen effluvium and other causes of diffuse hair loss could not be excluded. Patients were questioned about all possible triggering factors, including history of recent delivery, physical or surgical trauma, acute psychological insult or stress, acute febrile illness, severe diet, drug history including oral contraceptive pills discontinuation, and history of any scalp disease like scalp psoriasis or severe seborrheic dermatitis or hair dyeing and hair dye contact dermatitis.

Results:

The ages of the patient ranged between 20 to 40 years old and the duration of their complaints ranged between 1 to 12 months with a mean and standard deviation of 3.5 ± 1.8 months. In 74 patients (74%) the duration of complaints were shorter than 6 months, while in 26 patients (26%) the duration were longer than 6 months.

In all 100 patients (100%) the chief complain was recent onset of excessive hair fall or loss, but only in 12 patients (12%) visible scalp hair thinning was noticed by the patients and only in 8 patients (8%) there was trichodynia, which is mild pain or discomfort felt at hair root, when patients were asked specifically about this complain (table 1).

All patients had significant anxiety about their condition, and it was not

proportional to their degree of hair loss and were preoccupied about going to have severe alopecia.

Regarding the triggering factors, in 38 patients (38%) no underlying triggering factor could be identified and these cases were labeled as idiopathic. In 31 patients (31%) history of recent psychologically stressful event was present. 14 patients (14%) give recent history of delivery, 7 patients (7%) history of severe acute febrile illness and 4 patients history of oral contraceptive pills discontinuation. In 4 patients (4%) there was history of scalp contact dermatitis to hair dye, although during personal observation in this study most of the patients already have a dyed hair but it seems that hair dye alone does not trigger telogen effluvium unless there is associated contact dermatitis.

In all patients there was negative surgical or physical trauma or any medications intake (table 2). In patients with negative history of any possible triggering factor, especially in menstruating females investigations were done to exclude subclinical iron deficiency including serum iron, serum transferrin and iron binding capacity, and in 6 patients (6%) there was subclinical iron deficiency that was most probably

the trigger for telogen effluvium in these patients (table 2). In subclinical iron deficiency the patients is asymptomatic for anemia and hematocrit measures like hemoglobin concentration and mean corpuscular volume could be normal.

Table 1:, symptoms and complains of patients with telogen effluvium .

Symptom	No. of patients involved	% of the presence of symptom
Shedding	100	100%
Visible scalp thinning	12	12%
Trichodynia	8 patients	8%

Table 2, causes and triggering factors of telogen effluvium in Iraqi women.

Triggering factor	No. of patients	% of the triggering factor
Postpartum	14	14%
Discontinuation of oral contraceptive pills	4	4%
Acute febrile illness	7	7%
Major surgery	2	2%
Acute psychological stress or trauma	31	31%
Medications	0	0%
Iron deficiency	6	6%
Hair dye contact dermatitis	4	4%
idiopathic	32	32%
Total no.	100	100

Discussion:

Telogen effluvium is a common dermatological problem encountered in daily dermatological practice. Its characterized by diffuse hair shedding often with acute onset and duration that usually last for up to months. It is usually occurs as a result of some triggering insults that lead a large number of hair follicles to enter telogen phase at the same time. In this study, most of our cases the duration of the condition was less than 6 months (74%) of cases and only (26%) of cases were more than 6 months. These results are compatible with previous studies, and are related to the fact that most of triggering factors for telogen effluvium are acute or transient in nature (1,2). Regarding patients symptoms and complains, all patients presented complaining of excessive hair shedding and were anxious about progressive hair loss and impending baldness, but only 12% of patients had visible scalp thinning upon examination and 8% admitted to have trichodynia when they were specifically asked. Therefore in most of our patients, telogen effluvium, could cause substantial psychological

impact and anxiety that could be not proportional to the degree of hair loss. These facts have the flowing significance, first this psychological impact could aggravate the telogen effluvium if it was sever, secondly, it is very important regarding management to give the patient reassurance and good explanation about the transient nature of the disease and that there is no impending baldness is going to occur. For the triggering factors in our study, 32% of patients had no underlying triggering factor, so, there were labeled as idiopathic, and this result is consistent with previous studies (11,12). Acute psychological stress or trauma was the most important triggering factor in our patients, which contribute to 31% of cases in our patients and when all other possible concomitant triggering factors could not be revealed. Results of this study and other previous studies indicates that psychological stress can induce catagen and telogen in hair follicles and this may be related to release and effect of certain neurotransmitters and Stress related hormones or substances (6). Stress may act as primary inducer or aggravating factor in the presence of other triggering factor, and the results of studies on association of stress with telogen effluvium is agreeable with results in this study (13,14,15). Subclinical iron deficiency is important triggering factor that should be looked for specifically by doing appropriate laboratory especially when no clear triggering factor could be identified, and especially in cases of telogen effluvium that last for more than 6 months with tendency for chronicity and especially with history of heavy menstruation or poor dietary habits with low iron intake (16). In our study 6% of our patients with telogen effluvium was attributed to iron deficiency, although the results of previous studies were not conclusive (17,18), while other study demonstrated higher association between telogen effluvium and iron deficiency (19). Complete blood counts could be normal in women with mild iron deficiency anemia. Blood is more essential than hair and has the priority for stored iron, and hence, hair may start to shed before red blood cells Indices become microcytic (20). Although low serum ferritin is proof of iron deficiency, a normal level does not exclude iron deficiency and further confirmation can be done by depending on iron saturation as the most sensitive indicator of iron deficiency (21).

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