

Traction Alopecia: A predominant hair fiber disorder

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ABSTRACT

Hair, being a crucial adornment to scalp, enhances the attractiveness of an individual. So as to maintain the beauty, hair needs good care. Pulling the hair vigorously or improper handling leads to damage of follicle as well as shaft, which often gives rise to hair loss. Generally, such a hair loss is temporary in nature but it may cause permanent loss of hair if not taken seriously. This paper aims to discuss the signs, causes and methods of treatment related to hair loss caused due to traction.

Keywords- Alopecia, Hair loss, Traction

I INTRODUCTION

The term “**Alopecia**”, originated from Ancient Greek language, means “fox diseases”, as foxes change their hair twice in a year [1] and “Traction” refers to “tension or pulling”. Traction alopecia involves the mechanical damage to the hair follicles due to repetitive pulling. People who wear tight braids, bun, ponytail, wigs, dread locks are prone to this alopecia [2,3]. It is reversible in nature. Hair grows back as soon as the hair pulling stops but, it may be lifelong if injury to the follicles is not avoided [4]. Figure 1 clearly demonstrates traction alopecia.



Figure 1 Traction alopecia

II CAUSES

This condition may occur among males and females of any age, but old people are more prone to it as the follicles get more damaged, the longer the hairs are pulled. Moreover, people with long hair are more susceptible to this problem [5,6]. The causes are as follows:

1. Vigorously combing the hair.

2. Tight braids or cornrows.
3. Very tight ponytails or pigtails.
4. Extension braids.
5. Dreadlocks.
6. Hair wigs attached with pins or adhesive.
7. Tight hairpieces.
8. Tight and harsh headbands.
9. Tight helmets that are worn regularly or for long span of time as they tend to rub or pull repetitively on the same part of scalp.
10. Regular use of hair rollers.
11. Combing wet hair.
12. Repetitive pulling of the hair (an emotional disorder called trichotillomania).

All the above causes make an individual prone to traction alopecia [7-9].

III SYMPTOMS

In the beginning, traction alopecia may show small bumps on the scalp that appear as a type of pimples. With the passage of time, the early symptom diminishes and broken hair start appearing on the scalp. Generally, front boundaries of scalp are most affected. Moreover, the affected area depends upon the hairstyle of victim. Some other symptoms of traction alopecia are:

1. Small bumps
2. Tenderness of scalp skin.
3. Itching
4. Redness
5. Scaling
6. Inflammation of follicles
7. Pus-filled blisters

In extreme cases, bald patches and headache may become prominent. Ultimately, the follicles may damage completely and scars may appear with permanent hair loss [10,11]. Traction Alopecia may be avoided by considering few of the early symptoms:

1. Bumps on scalp.
2. Pain in affected area.
3. Hair breakage.

Traction alopecia may develop into serious problem if the above symptoms are ignored [12,13].

IV PREVENTION

In order to prevent traction alopecia, hair must be kept loose. Other prevention measures are:

1. Hairstyle must be changed regularly.
2. Never use tight rubber bands to tie high ponytail. As they may pull out hair.
3. Chemically processed hair must be handled with care as they become weak and may break with little tension [14].
4. Weaves or hair extensions must be worn for short span of time.
5. Make thicker braids or dreadlocks as thin braids or dreadlocks pull hair more tightly.
6. Use hair iron or dryer at low temperature.
7. Never sleep in hair extensions or rollers.
8. Reduce the usage of heat and chemicals [15,16].

V DIAGNOSIS

Traction Alopecia can be diagnosed as follows:

1. **Informal Conversation:** This helps to find out the reason behind hair fall, history regarding condition etc [17].
2. **Clinical examination:** To check for the presence of various symptoms [18,19].
3. **Biopsy:** In this method, a small piece of the scalp (having a number of follicle) is removed and close investigation is done under microscope [20,21].

VI TREATMENT

The best treatment for traction alopecia is prevention. Early symptoms must be kept in mind and prevention measures must be taken to avoid them [15].

Following medications may be used for the treatment of traction alopecia:

1. Antibiotics to cure infection in open wounds.
2. Topical steroid creams to treat swelling on scalp.
3. Antifungal ointment or shampoo.
4. Topical Minoxidil to stimulate hair growth [22].
5. Biotin supplements to make hair stronger.
6. Low level laser light hair therapy.
7. Hair replacement [23-25].

VII CONCLUSION

Traction Alopecia is becoming more prevalent among young females, as the use of hair grooming devices and chemicals is increasing day by day. The appearance of early signs must be considered seriously so as to prevent

hair loss. Moreover, it is a reversible type of hair loss i.e. hair may regrow after the cause disappears, but it may lead to permanent damage to the follicles if not handled carefully. Medicinal treatment must be taken along with Food supplements which are meant for strengthening of hair.

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