



**Libyan International Medical University
Faculty of Basic Medical Science**



Treatments of hereditary hair loss (alopecia)

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Date of submission: - 15/4/2018

This report was written to fulfill the requirement of the reproductive block in as a quality assignment.

Summary (Abstract):-

One cause of male pattern baldness is genetics, or having a family history of baldness. Research has found that male pattern baldness is associated with male sex hormones called androgens. The androgens have many functions including regulating hair growth. Each hair on your head has a growth cycle. With male pattern baldness, this growth cycle begins to weaken and the hair follicle shrinks, producing shorter and finer strands of hair. Eventually, the growth cycle for each hair ends and no new hair grows in its place. Inherited male pattern baldness usually has no medical ill effects. However, There is no cure for hereditary hair loss, but there are three types of medical treatments that may be helpful for some people, either alone or I combination: minoxidil, finasteride, and surgery

Introduction:-

Hair is the second fastest growing tissue in the human body, the first being bone marrow. The rate of hair growth is about 1.25 cm (0.5 inches) per month. With age the speed of hair growth significantly slows down, and may turn out to be only 0.25 cm (0.1 inch) a month.

Baldness becomes visible only when the amount of lost hair approaches to 50%.

Hereditary hair loss (androgenetic alopecia) is the most common form of hair loss in men, and is responsible for more than 95% of all cases of baldness.

Hair are a protein product of follicles and so are sensitive to changes within the body, and hair loss is often the result of an internal disorder.

What is hair loss?

Hair loss (alopecia) is a tendency of follicles to stop producing hair growth, leading to a decrease in the amount of hair. Although alopecia can occur anywhere on the body, it is especially distressing when it affects the scalp. It usually develops gradually and may be patchy or diffuse.

Discussion:-

There is no cure for hereditary hair loss, but there are three types of medical treatments that may be helpful for some people, either alone or I combination: minoxidil, finasteride, and surgery.

Minoxidil:-

Minoxidil is an over-the-counter drug approved by the FDA for stimulating new hair growth and preventing further hair loss in cases of hereditary balding. Minoxidil is rubbed into the scalp twice a day. The extra strength 5% is for men only; the regular strength 2% solution is for both men and women.

About one-quarter of men and one-fifth of women who use regular-strength minoxidil experience some hair regrowth, which may take 2 to 4 months. The extra-strength version for men can be 45 percent more effective than the regular-strength product.

The new hair is usually thinner and lighter in color than normal hair. Rarely does all of the hair grow back, but there is often enough to hide the bald spots or thin areas. Minoxidil may be more effective in the earlier stages of hereditary baldness. Minoxidil needs to be taken regularly and continually; when it is discontinued, the new hair usually falls out within a few months.

Patients considering taking minoxidil should tell their health care provider if they are taking any other medicines, especially high blood pressure medication. It is also important to tell the health care provider about any other hair products being used and any other existing medical conditions.

Side effects include dryness and irritation of the scalp.

Oral finasteride:-

Oral finasteride (Propecia, Proscar) is an FDA-approved drug for baldness and the only one available in pill form (one pill a day). Finasteride blocks the formation of the hormone dihydrotestosterone (DHT), which is responsible for shrinking hair follicles and is believed to be a significant factor in hereditary baldness or thinning.

Finasteride is a prescription drug for men only. It is not effective for women and can cause serious birth defects.

Researchers estimate that more than 80 percent of men who take finasteride notice that their hair loss has slowed, and more than 60 percent notice regrowth. It usually takes several months before the hair starts to grow back. Finasteride has not been on the market long enough to assess its long-term effects nor has it proven effective for nonhereditary baldness, hair loss that occurs as a result of illness or after childbirth, or for children or adolescents.

Rarely, finasteride leads to diminished libido and sexual dysfunction.

Hair Loss Surgery:-

During hair transplantation, the dermatologist removes a small "punch" of skin with full hair thickness from one part of the body (usually the back or side of the scalp) and transplants it into a bald patch. Several surgeries are usually performed over a few months.

Hair transplantation is expensive, time consuming, and sometimes painful. A very small percentage of patients suffer chronic head pain afterward. Potential complications include permanent scarring and chronic infection.

Scalp reduction involves reducing the size of the scalp. The doctor stretches the skin on the top of the head and cuts some of it away, thereby reducing the total area of bald skin. In a procedure known as a "flap," the doctor stretches a piece of skin that has hair on it and folds it over the bald area. Scalp reduction is often combined with hair transplantation.

Conclusions:-

The most common cause of hair loss is a hereditary condition called male-pattern baldness or female-pattern baldness. It usually occurs gradually and in predictable patterns — a receding hairline and bald spots in men and thinning hair in women.

Heredity also affects the age at which you begin to lose hair, the rate of hair loss and the extent of baldness. Pattern baldness is most common in men and can begin as early as puberty. This type of hair loss may involve both hair thinning and miniaturization (hair becomes soft, fine and short).

Reference:

1-Whiting DA (2006). Disorders of [hair](#). In DC Dale, DD Federman, eds., ACP Medicine, section 2, chap. 13. New York: WebMD.

2-Hague J, Berth-Jones J (2010). [Alopecia](#) areata. In MG Lebwohl et al., eds., Treatment of Skin Disease: Comprehensive Therapeutic Strategies, 3rd ed., pp. 31-35. Edinburgh: Saunders Elsevier.

3-Wolff K, Johnson RA (2009). Disorders of hair follicles and related disorders. In Fitzpatrick's Color Atlas and Synopsis of Clinical Dermatology, 6th ed., pp. 962-986. New York: McGraw-Hill.