Few dermatologic problems carry as much emotional overtones as the complaint of hair loss. Even if the complaint of hair loss may at times seem disproportionate to the extent of recognizable hair loss, the number of patients suffering of truly imaginary hair loss is negligible. The most frequent psychological disorder associated with the complaint of hair loss is adjustment disorder to the problem of hair loss. Therefore, the best way to alleviate the emotional distress is to effectively treat the underlying problem. Usually, a detailed patient history, systematic physical examination, and pertinent screening blood tests will establish a specific diagnosis, and once the diagnosis is certain, treatment appropriate for that diagnosis is likely to control the problem.

Nevertheless, evidence-based medicine (EBM) treatment options remain limited, both in terms of indications and efficacy. EBM guidelines do not remove the problem of extrapolation to different populations or longer timeframes. Even if several top-quality studies are available, questions always remain about how far, and to which populations their results may be generalized. More importantly, certain patient groups have been historically under-researched, such as special age groups, ethnic minorities, and people with co-morbid conditions. Therefore, one must remain open-minded for the possibility of a multitude of cause-relationships underlying hair loss, and consequently for the possibility of combined treatments and multi-targeted approaches to hair loss. Prerequisite for delivering appropriate patient care is an understanding of the pathologic dynamics of hair loss and the multitude of cause relationships. New insights focus on the role of a number of internal and external factors, such as: nutrition (proteins, energy, vitamins, and trace metals), hormones, aging, cigarette smoking, and UV radiation (UVR).

The quantity and quality of hair are closely related the nutritional state of an individual. Normal supply, uptake, and transport of proteins, calories, trace elements, and vitamins are of fundamental importance in tissues with a high biosynthetic activity such as the hair follicle. Because hair shaft is composed almost entirely of protein, protein component of diet is critical for production of normal healthy hair. The
rate of mitosis is sensitive to the calorific value of diet, provided mainly by carbohydrates. Finally, a sufficient supply of vitamins and trace metals is essential for the biosynthetic and energetic metabolism of the follicle. The effects of nutrition on hair growth have been recognized from observations in inborn errors of metabolism, in deficiency disorders, and from supplementation studies both in animals and in humans. It would appear that on a typical Western diet, the hair follicle should have no problem in producing an appropriate hair shaft, and that unless hair loss is due to a specific nutritional deficiency, there's only so much that nutritional therapies can do to enhance hair growth and quality. The fact is, that vitamin and nutritional deficiencies are not uncommonly observed in adolescent females and young women with eating disorders (anorexia and bulimia nervosa), with food faddism, and are especially common in the elderly. As many as 50% of the elderly population have a vitamin and mineral intake less than the recommended dietary allowance, and as many as 30% have subnormal levels of vitamins and minerals. Moreover, there are external factors – such as cigarette smoking and UVR - that influence hair health to such a degree, that nutritional therapy can boost hair that's suffering from these problems.

Ultimately, patients need to be educated about the basics of the hair cycle and the nature of their condition, and why considerable patience is required for effective cosmetic recovery. Communication is an important component of patient care. Treatment success relies on patient compliance. Rather than being the patient's failure, patient non-compliance results from failure of the physician to ensure confidence and motivation. The influence of the prescribing physician should be kept in mind, since inspiring confidence versus scepticism and fear clearly impacts the outcome of treatment. Recommendations for improvement of patient compliance are: only recommending treatments that are effective in circumstances when they are required; prescribing the minimum number of different medications, e.g., combining active ingredients into a single compound; simplifying dosage regimen by selecting different treatment or using a preparation that needs fewer doses during the day; selecting treatments with lower levels of side effects or fewer concerns for long-term risks; and regular follow-up at 3, 6, and 12 months for reassurance on drug safety and treatment benefits. The overall goal is to gain short-term compliance as a prerequisite to long-term adherence to treatment. Short-term compliance issues that are addressed by the physician within the first three months of therapy are: winning
the patient’s confidence in the diagnosis and treatment plan, and detecting problems relating to the prescribed treatment regimen, or drug tolerance. Long-term compliance issues are: treatment efficacy and sustainability, long-term toxicities, and treatment costs. Finally, in the long-term treatment of an oligo-symptomatic condition such as hair loss, neglect may become a problem with time, since the patient may take the pharmacologically induced condition for granted.

Further Reading

Trüeb RM, Tobin DJ. Aging Hair. Springer 2010