SUMMARY AND CONCLUSION

Hirsutism, is an androgen – related condition characterized by increase in growth of facial and body hair may occur in women with increased androgen production or with hypersensitivity of the hair follicles to androgen stimulation.

Hirsutism may result from hereditary factors, endocrine disease, drug therapy or neoplastic causes, however in most cases there is no obvious cause, called idiopathic hirsutism.

Many women choose to remove unwanted body hair for cosmetic, social, cultural, or medical reasons. Many methods are available for hair removal including physical methods such as; bleaching, shaving, tweezing, waxing and chemical depilatories. All these methods result in temporary hair removal and each of them has its own relative efficacy and adverse effects.

Electrolysis, also termed electrology, has been the only acceptable method of permanently removing hair for several decades. However, it needs not only a well trained physician or cosmetician but also multiple treatment sessions over months to years. There are 2 types of electrolysis; the 1st is galvanic electrolysis direct current electrolysis and the 2nd is thermolysis (alternating current electrolysis).

Most modern electrolysis machines use thermolysis or the blend method; a combination of galvanic electrolysis and thermolysis. Pain- a primary adverse effect of electrolysis- can be diminished with the use of new topical anaesthetic creams 1 hour prior to the procedure. Important and potentially permanent adverse effects of electrolysis include scarring

(i.e. keloid formation) and post inflammatory hyperpigmentation or hypopigmentation, other adverse effects include local bacterial and viral infection. The spread of hepatitis or (HIV) has not been reported with electrolysis. Electrolysis is not safe for patients with cardiac pacemakers and should not be used on these patients.

The need for a rapid, non invasive and effective method for hair removal has led to the development of various light and laser sources for hair removal. In an attempt to understand how these devices work to remove unwanted or excess hair, the principles of selective photothermolysis have been employed with several different laser and light devices that permit the effective treatment of large areas of hair – bearing skin with minimal discomfort and with low risk of scarring or other complications.

The target chromophore of laser is the pigment (melanin) located within the hair follicle. The light from the laser devices is absorbed by this pigment and the energy is converted to heat which result in thermal damage to the hair follicles without causing injury to the surrounding structures. However, because the epidermis is pigment laden, it must be protected from damage by cooling the skin surface. Also, many studies have found that early anagen represents the best time for treatment. Therefore the best candidates for laser hair removal are patients with dark hair and light coloured skin. Eradication of light hair colours (e.g. blonde, red and grey) is not effective, because these hair follicles contain less eumelanin. In order to treat such individuals, an exogenous carbon suspension has been placed in the follicular orifice to absorb the light.

There are various types of laser equipment that are being used; these different types of lasers and their wavelengths are

* Short pulsed QS lasers

Q-switched : Nd. YAG laser (1064 nm)

* Long pulsed lasers.

Ruby laser (694 nm)

Alexandrite laser (755 nm)

Diode laser (800 – 810 nm)

Nd : YAG laser (1064 nm)

* There are other means of photoepilation techniques such as

Intense pulsed light (photo Epilation system) (515 – 1200 nm)

Photodynamic therapy.

Another line of treatment of hirsutism is the medical treatment in the form of Antiandrogens not only for hirsutism but also for virilism and polycystic ovarian syndrome. The most common antiandrogen therapies are spironolacton, estrogen – progestin oral contraceptives and dexamethasone alone or in combination. Cyproterone acetate although used worldwide is not available in the USA.Other antiandrogens include medroxyprogesterone acetate, GnRH analogues, ketoconazole, flutamide, cimetidine, bromocriptine and finasteride.

Topical antiandrogens are also available as topical finasteride cream and topical eflornithine cream. The treatment of hirsutism is directed toward lowering androgen bioactivity within the hair follicle. The logical strategies include diminution of exposure of the follicle to precursor androgens, reduction of intrafollicular synthesis of DHT or blockade of follicular androgen receptors.

Hair removal methods based on light technology, such as; lasers and intense pulsed light systems are alternative methods for long – term hair removal, Intense pulsed light has been used in the last 2 years to treat light to – dark skinned patients, including skin types V and VI who represent contraindication to be treated by laser. An intense pulsed light source that generate 590 – 1200 nm non coherent light pulses can be used with various cut – off filters to tailor treatment to the skin type and hair colour of the patient. For treatment of dark – skinned individuals, higher cut-off filters can be used to omit light at lower wavelengths, where absorption of light in epidermal melanin is greatest. Longer pulse duration and longer wavelengths are available to target deeper structures, while protecting the epidermis.

The aim of this study is to evaluate the efficacy and safety of IPL in the management of hirsutism.

A group of 20 women with hisutism has been chosen for this purpose age ranged from (21- 43 yrs). They were subjected to through history taking and medical examination, pelvi-abdominal ultrasonography and serum assays for free T and DHEA-S were performed before treatment.

Hirsutism was assessed by using the frequency of hair removal per month before and after 3 and 6 months of treatment and photographed the patient by a digital camera before and after treatment and at 3 and 6 months after the last treatment.

Patients were treated during multiple sessions (five to seven) for un wanted facial hair. Sessions were conducted monthly and patients were evaluated at follow – up sessions 3 and 6 months after the final treatment. Successful clearance of unwanted hair was achieved in all twenty patients

with no pigmentary changes observed during the final follow up sessions. Folliculitis and hyperpigmentation from electrolysis were also improved by the intense pulsed light source. These results suggest that intense pulsed light is an effective source for hair removal and may with proper parameter selection, be useful in the treatment of very dark skin type V & VI.

CONCLUSION

- IPL is an ideal facial hair- removal method because of the credible effect, well tolerability, simple operation, rapid treatment with significant improvement and no serious complications, with few disadvantages such as; repeated treatments needed, Expensive and rare reports of paradoxical hypertrichosis.
- Permanent hair removal cannot be guaranteed but IPL represents effective and safe method with long- term epilation of unwanted hair.