INTRODUCTION AND AIM OF THE WORK

Hypertrichosis and hirsutism are terms of excessive hair growth. Hypertrichosis is defined as an increase in hair growth in non androgen dependent areas and is usually of non endocrinal origin. It may be diffuse or localized and can occur in either sex ***(Zaias, 1991).***

However, Hirsutism is a medical condition characterized by excessive hair growth in women; Hair growth occurs in a male pattern distribution, primarily in facial regions such as the upper lip and chin ***(Olsen, 1999).***

Hirsutism is a severely distressing condition to many patients. In most cases there is no obvious cause (idiopathic), some patients have excess androgen secretion that may be due to ovarian, adrenal or excessive stimulation by pituitary tumours, end organ hypersensitivity to androgen or iatrogenic hirsutism ***(Odom et al., 2000a).***

Medical intervention with drugs that block androgen receptor binding provides only partial treatment for the condition, since the treatment is only effective while the drug is being taken. Furthermore the drugs will not affect unwanted hairs that are not androgen-dependent and little attention has been paid to the optimal duration of treatment and recurrence rate after cessation of therapy ***(Olsen 1999a).***

Temporary hair removal methods include shaving, waxing, depilatory creams and tweezing. These are convenient and inexpensive methods to control hair growth, but require high maintenance and can result in skin irritation and foliculitis. Permanent treatment by electrolysis

is a painful and time-consuming approach with scarring as a potential side effect ***(Sommer et al., 1998).***

Photodynamic therapy involves the combination of non ionizing radiation (argon pumped day laser '630 nm') with a topical or systemic photo sensitizers ***(Olsen, 1999).***

Hair removal using optical methods was discovered as early as 1979 and since 1995 the public and manufacturers have shown a great interest in the new hair removal lasers and intense pulsed light (IPL) sources that have been developed ***(Grossman et al.,1996).***

Laser and IPL sources of hair removal is a relatively new approach to long-term epilation of unwanted hair. Permanent hair removal in some cases and prolonged growth delay with sustained reduction in hair counts have been reported ***(Bencini, 1999).***

The use of lasers and intense pulsed light (IPL) sources for hair removal is based on the theory of selective photothermolysis ***(Anderson and Parrish, 1983).***

Laser assisted hair removal has recently received attention because of its ability to non invasively remove large areas of unwanted hair with minimal discomfort and a low incidence of complications. Its distinct advantage lies in its enhanced selectivity and effectiveness in permanently eradicating hair or slowing hair regrowth. Often, regrowing hairs are thinner and lighter in colour ***(Lask et al., 1999).***

An intense xenon flash lamp device (an intense pulsed light source). That generates 590-1200nm 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 by melanin (which is the target chromophore)- present in the hair matrix as well as in epidermal melanin- is greatest. Longer pulse duration and longer wavelength are available to target deeper structures, while protecting the epidermis. Additional protection of epidermal melanin is achieved by the use of multiple synchronized pulses separated by controlled delay times ***(Tse 1999).***

The aim of this work is to evaluate the effect of intense pulsed light (IPL) in hirsutism.