

## **Treating PCOS Specially Hirsutism in Combination of Medical Therapy & Laser Treatment**

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### **Abstract:**

The main causes of hirsutism are polycystic ovary syndrome (PCOS) and idiopathic factors. Traditional methods like waxing and shaving offer temporary relief. Light-based technologies, including laser hair removal, have become more effective in recent years, providing significant physical and psychological benefits. Combination of DChiro-inositol & Myo-inositol can help regulate insulin levels, lower androgen levels, and reduce symptoms like acne and facial hair growth in women with PCOS. Laser-assisted hair removal using devices like long pulsed Nd Yag lasers is a viable treatment option. The aim of this study is to evaluate the efficacy and safety of combining medical therapy with laser treatment for managing hirsutism in women with PCOS. This case-control observational study was conducted at the Department of Dermatology, Enam Medical College and Hospital, Savar and Laser Center Ibn Sina Dhaka, Bangladesh, for over one year from July 2023 to June 2024. Eighty participants were enrolled, with 40 in each group. The case group received both medical therapy (Combination of D-Chiro-inositol & Myo-inositol) & Laser Treatment, while the control group received only medical therapy. Inclusion criteria included women aged 18-40 with PCOS and hirsutism (Ferriman-Gallwey score  $\geq 8$ ). The primary outcome was the change in Ferriman-Gallwey scores over 6 months. Secondary outcomes included patient satisfaction, quality of life, and adverse events. There were no significant baseline differences between the groups. The intervention group showed a greater reduction in Ferriman-Gallwey scores ( $p < 0.001$ ), higher satisfaction ( $p < 0.001$ ), and improved DLQI scores ( $p < 0.01$ ). Mild laser treatment-related adverse events occurred in 20% of the intervention group but resolved without intervention. Combining medical therapy with laser treatment significantly improved hirsutism in PCOS patients. The intervention group showed greater Ferriman-Gallwey score reductions, higher satisfaction, and better quality of life. The treatment was well-tolerated with mild, transient adverse events, suggesting enhanced benefits from adding laser treatment to standard therapy.

### **Keywords:**

Medical Therapy, Laser Treatment, PCOS and Hirsutism.