

Topical Imiquimod treatment versus large loop excision of the transformation zone (LLETZ), an open-label randomized controlled trial in newly diagnosed Cervical Intraepithelial neoplasia.

Introduction: Cervical cancer is a significant global health concern, particularly in regions lacking comprehensive screening and treatment programs. Cervical Intraepithelial Neoplasia (CIN) is a precursor to cervical cancer, often caused by Human Papillomavirus (HPV) infection. This study compared the efficacy and safety of topical Imiquimod therapy with the standard Large Loop Excision of the Transformation Zone (LLETZ) procedure in treating CIN 2/3 lesions, aiming to provide evidence for more accessible and non-invasive management options.

Methodology: This was a randomized controlled trial conducted in India over a period of 18 months. Colposcopy and histologically confirmed HPV-positive and negative patients with CIN 2/3 were assigned to receive either Imiquimod or LLETZ. Adherence, adverse effects, and treatment outcomes were closely monitored and analyzed.

Results: Imiquimod demonstrated histopathological regression to CIN1 or lower in 94.4% of cases, with HPV clearance at 100%. The LLETZ group exhibited 100% regression and 85.7% HPV clearance. Imiquimod therapy showcased 100% compliance. Imiquimod-associated adverse effects were mild and manageable, with low-grade fever being the most common (59.09%). Whereas in comparison to the LLETZ group, watery vaginal discharge was the significant adverse effect of the treatment.

Conclusion: The study revealed the high efficacy of Imiquimod therapy compared LLETZ in regressing CIN 2/3 lesions. Our study emphasizes the need for tailored interventions based on age, desire for fertility, and availability of surgically specialized personnel. Addressing socioeconomic and cultural barriers to cervical cancer screening participation in India seems to be the need of the hour.

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