Laser Epilation Improves Resolution of Pilonidal Disease: Early Outcomes from a Specialized Pilonidal Care Clinic


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INTRODUCTION

A dedicated Pilonidal Care Clinic (PCC) was launched in March 2014 with the aim of:

• Providing centralized provider access
• Standardizing treatment and simplifying care
• Evaluating treatment methods to determine best practices
• Improving patient education
• Improving patient compliance with treatment
• Improving patients’ quality of life

Due to high surgical failure rates and complications, a conservative treatment approach was utilized. The purpose of this report is to evaluate the effect of laser epilation on pilonidal disease patients in a specialized Pilonidal Care Clinic (PCC).

*This is an IRB approved study

METHODS

All patients were evaluated by a pediatric surgeon and PA with training in advanced wound care and laser epilation.

Treatment methods:

• Daily soaking and frequent shaving was prescribed for:
  - Any patient with active infection
  - Patients with little-to-no gluteal crease hair
  - Patients with red hair
  - Hirsute patients with active infection [until infection resolved, then transitioned to laser]
  - Patients with large open wounds [until wound contracts, then transitioned to laser]

• Laser epilation (one treatment every 2 months) was prescribed for:
  - Hirsute patients without active infection
  - Patients with sufficient hair pigment
  - Patients with no current photo-sensitizing medications

• All patients were followed for resolution or recurrence

• Study period March 2014 - September 2016
• Multivariate logistic regression analysis

RESULTS

120 patients
• 43 (36%) Female, 77 (64%) Male
• Mean BMI 28.4 (Range 19-54.8)
• Follow-up data available for 75 (63%) patients – 33 (44%) laser, 42 (56%) no laser

Disease severity classification:
• Low-level: 1-3 pits, no drainage or open wound
• Moderate: >3 pits, intermittent drainage, open wound <1cm
• Severe: multiple pits, chronic drainage, open wound >1cm
• Dehiscence: chronic surgical dehiscence from prior operation

Independent predictors of symptom resolution included:
• Female gender
• Treatment duration
• Low disease severity at intake

After adjusting for these factors, undergoing laser epilation was independently associated with symptom resolution

<table>
<thead>
<tr>
<th>Treatment Type</th>
<th>Unadjusted</th>
<th>Adjusted*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laser</td>
<td>1.58</td>
<td>9.51</td>
</tr>
<tr>
<td>No Laser</td>
<td>1.00</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Symptom Resolution by Treatment Type
Cases with complete follow up (N=75)

* Multivariable adjustment for gender, starting severity of disease and months in study

CONCLUSIONS

Female patients, those with less severe disease, and those who pursue treatment longer have better outcomes.

After adjusting for these factors, laser hair removal was demonstrated to be an independent predictor of pilonidal disease symptom resolution compared to hygiene and shaving alone.

Future Directions:

• As more patients complete laser epilation treatments (minimum of 6 sessions), continued data analysis of laser hair removal vs. traditional surgical treatments may delineate the role of epilation in pilonidal disease management

• Long-term follow-up (2 years +) is necessary to establish laser epilation as a lasting treatment for pilonidal disease

• Stratifying pilonidal disease by severity may be helpful in choosing treatment course

• Cost analysis (laser vs. surgical treatments) may support efforts to sustain laser epilation as a clinical treatment for pilonidal disease and encourage insurer reimbursement