

SINUS LASER ASSISTED CLOSURE (SILAC) IN CHILDREN AND ADOLESCENTS FOR PILONIDAL SINUS DISEASE: A PRELIMINARY REPORT WITH PROMISING RESULTS

**Terzi Marilena, Marantos Aggelos, Kkoumourou Eleni, Chiotini Eva
Varvara, Karela Rafailia, Sklavos Michail**

P&A Kyriakou General Children's Hospital of Athens, 1st Surgical Department

Introduction: The management of Pilonidal Sinus Disease has always been a challenge for surgeons. During the last 10 years an increasing volume of academic publications is encountered, especially for the adult population, showing promising results through use of laser probes, for sinus ablation, namely Sinus Laser Assisted Closure (SiLAC).

Purpose: To determine if SiLAC gives satisfactory results in children and adolescents we started utilizing SILAC in our department since April-2022, keeping a prospective database with relevant data.

Material and Method: We used radial diode laser of wave length 1470 nm and major energy given per session 800 joules (cut-off). Anesthesia was either local or general based on patient's preference.

A wide range of data was recorded and patients monitored regularly. Inclusion criteria were at least two episodes of local inflammation or chronic symptoms.

Results: We present our results for a 15-months period. Twenty-four patients with 25 sessions of SiLAC have been included in the study. Among them 14 were females and 10 males with mean age 14,8 years (range 11,7-16,6). Eleven children (45,8%) were overweighted and 3 (12,5%) of them obese. Mean index of hairiness was 2,47 (range 1-5). Eleven had mild disease, 7 medium and 6 severe. Mean intraoperative pain score was 5,06 (range: 2-9). Mild postoperative complication only, was observed in 3 patients (12,5%). The recurrence rate was 16% (in 3 children in 4 sessions out of total 25). All recurrences were mainly severe disease (3 severe, 1 medium). The overall satisfaction score was 8,8 (range 6-10). Chi square analysis revealed strong relation between recurrence and severe disease (p-value=.004). No child with normal weight presented with recurrence.

Conclusion: Our recurrence rate is acceptable compared to similar studies in the literature and seems to be strongly related to severe disease and overweight according to our data. Bigger patients' samples are needed to support these results. Pain score implies that more efficient anesthetic measures should be applied. Given its minimally invasive manner and its easiness in repeating, we aim to further investigate the method.