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TREATMENT OF EPITHELIAL COCCYGEAL PASSAGE IN CHILDREN

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Despite the wide range of epithelial coccygeal passage (ECP) treatments, none of the existing approaches can be considered universal and practical. This is due to significant disadvantages, such as high risk of postoperative complications and possible recurrence. Given this, the treatment for ECP is of high economic and social significance.

Aim

To improve the effectiveness of surgical treatment for epithelial coccygeal passage in children.

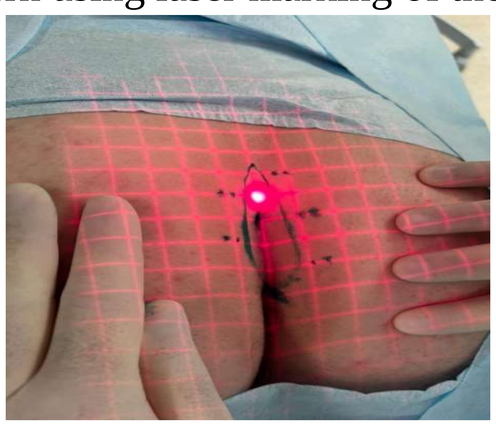
Materials and Methods

The study is based on the treatment outcomes of 97 patients with ECP who were treated between 2016 and 2023. The patients' ages ranged from 12 to 17 (15 [14; 16]). Sixty-nine of the patients were boys (71.1%), while 28 were girls (28.9%). All the children had clinical manifestations of ECP suppuration in all children.

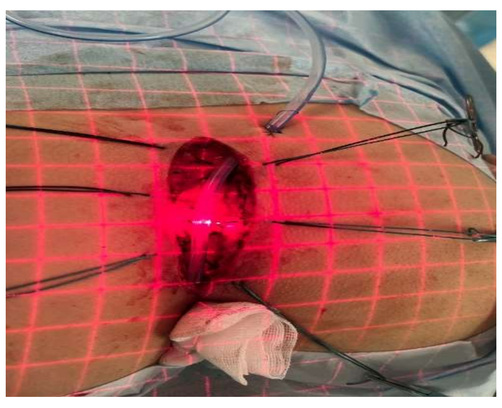
The patients were divided into two groups:

Group 1 - patients with the traditional method of tightly suturing the postoperative wound (n-52).

Group 2 - patients operated on using the technique developed by us: suturing the edges of the skin to the bottom of the wound in a checkerboard pattern using laser marking of the surgical field (n-45).

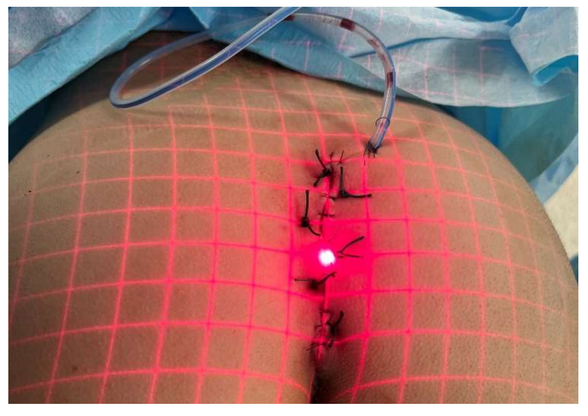


The surgical field was marked using a laser module installed on a static stand after the patient was positioned, so that one of the lines ran along the center of the intergluteal cleft. Sterile marker was used to apply symmetrical cutting lines with needle insertion and extrusion points at 1 cm and 0.5 cm from the edge, respectively.



The laser module was then switched off, and the skin was dissected along the selected lines, along with the subcutaneous tissue and the ECP, in one block up to the sacrococcygeal fascia within the healthy tissues. Then, through the marked puncture and extrusion points, the skin with the subcutaneous fat was sutured to the sacrococcygeal fascia. At the same time, a Blake drainage tube was inserted into the bottom of the wound through a counter-aperture incision 2 cm above and lateral to the surgical wound

The final image after suturing the surgical wound while controlled by laser marking. Controlled by laser marking, the sutures were tightened alternately in a checkerboard pattern. After turning off the laser module, the edges of the skin were also matched with single interrupted sutures.



Results

Early postoperative complications

Complications	Group 1	Group 2	P
Haemotoma	2 (3.85%)	1 (2.2 %)	p<0.05
Seroma	7 (13.5 %)	2 (4.4 %)	p<0.05
Wound infection	5 (9.6 %)	2 (4.4 %)	p<0.05
Dehiscence of sutures	4 (7.7 %)	2 (4.4 %)	p<0.05
Divergence of wound edges after removal of sutures	2 (3.85 %)	0	p<0.05
Total	20 (38.5%)	7 (15.4%)	p<0.05

Patients in Group II experienced a significant decrease in the number of early postoperative complications compared to those in Group I ($p < 0.05$).

Number of recurrences in patients of the study group

Group I		Group II		P
Catamnesis (years) M±SD	Number of recurrences (%)	Catamnesis (years) M±SD	Number of recurrences (%)	
2.8±1.26	14 (26.9%)	2.2±1.1	2 (4.4%)	p<0.05

The recurrence of ECP in Group II was reliably ($p<0.05$) lower than in Group I (4.4% and 26.9%, respectively).

Conclusion

As a result of using our technique of laser marking for the surgical field, patients who underwent surgery showed a decrease in relapses and postoperative complications compared to those who operated using the traditional method.

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