Peer Review File

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Reviewer A

Overall Assessment

This manuscript presents a series of 46 pediatric patients with benign frontal or frontotemporal lesions treated using either an open or endoscopic approach, with a proposed technical refinement involving the creation of an "operative channel." The findings suggest superior aesthetic outcomes with the endoscopic approach, albeit at the cost of increased operative time.

While the series is of clinical interest, the presentation lacks sufficient methodological rigor, and several claims are either overstated or insufficiently supported by evidence. Endoscopic resection of benign facial lesions, including in pediatric populations, has been widely documented since the early 2000s (Guerissi et al., 2004; Lin SD et al., 2001; Chen et al., 2004). Its aesthetic advantages and safety profile are well established (Sadick et al., 2014), as is the increased operative time compared with open resection. The current study should therefore be positioned as confirming existing evidence rather than introducing a novel technique.

The principal contribution lies in the described technical modification intended to facilitate dissection. However, the manuscript does not convincingly demonstrate that this refinement yields equivalent or superior outcomes compared with conventional endoscopic techniques. The English language requires professional editing to meet publication standards.

Major Revisions

Title

Comment 1: The title is not sufficiently specific. It should explicitly state the comparison with open surgery and highlight the described technical refinement.

Reply 1: We sincerely thank the reviewer for this critical suggestion. We have completely revised the title to explicitly highlight the comparative nature of our study and to better emphasize the technical refinement (the subcutaneous operative channel) as the core contribution. We believe the new title more accurately and specifically reflects the content of the manuscript.

Changes in the text: Page 1 Line 1-5

Comment 2: The term frontal-facial lacks anatomical precision and should be replaced with an appropriate descriptor (e.g., "frontal," "frontozygomatic," "frontotemporal," "frontal and periorbital," "upper third of the face," or "frontonasal" for superficial midline lesions, "facial" for midface lesions).

Reply 2: We thank the reviewer for this precise correction. We agree entirely that the term "frontal-facial" is too vague. After reviewing the anatomical locations of the lesions in our cohort, we have replaced "frontal-facial" with the more precise term

"Periorbital" throughout the manuscript, as this most accurately describes the regions involved in our study population.

Changes in the text: Page 1 Line 1-5

Comment 3: Lines 42–43: Symptoms described pertain to intracranial tumors (ref 6), whereas the lesions in this series are extracranial. The cited reference (ref 4) concerns cheek tumors, not frontal lesions.

Reply 3: We thank the reviewer for this valuable suggestion. In response, we have meticulously re-evaluated and reorganized the references cited in our manuscript. Furthermore, aligning with the more precise anatomical focus on the "periorbital" region as now defined in our study, we have completely rewritten the first paragraph of the Introduction. This ensures a high degree of consistency between the cited literature and the specific disease entities discussed in our paper.

Changes in the text: Page 4-6 Line 41-81

Comment 4: Line 69: The authors cannot claim credit for identifying Merkel's space as an endoscopic access route; this is well documented.

Reply 4: We sincerely thank the reviewer for this critical suggestion. Upon thorough re-examination of our original manuscript, we confirm that the description of Merkel's space was not included in our text. Our technique specifically utilizes the subgaleal loose connective tissue layer as the surgical pathway. We acknowledge that our initial phrasing may have been ambiguous, potentially leading to this misinterpretation. Consequently, we have rewritten the relevant paragraph to unambiguously delineate our surgical approach and to more clearly position our work as a technical modification built upon the foundation of prior established studies. We hope the revised version addresses the concern satisfactorily.

Changes in the text: Page 8 Line 112-120

Comment 5: Clearly define the anatomical regions of the lesions (forehead, eyebrow, nasal root, nasal dorsum, cheek). A supplementary table or figure may be helpful.

Reply 5: We thank the reviewer for this insightful suggestion. In response, we have refined the anatomical description throughout the manuscript, precisely defining the lesion location as the "periorbital" region. All relevant text has been updated accordingly to maintain this precise anatomical focus.

Changes in the text: Page 2 Line 7
Changes in the text: Page 2 Line 12-13
Changes in the text: Page 2 Line 15-16
Changes in the text: Page 3 Line 23
Changes in the text: Page 3 Line 38
Changes in the text: Page 6 Line 89
Changes in the text: Page 8 Line 123
Changes in the text: Page 9 Line 128
Changes in the text: Page 12 Line 188
Changes in the text: Page 8 Line 123

Comment 6: Provide justification for the chosen sample size.

Reply 6: We thank the reviewer for raising this important methodological point. The sample size was not predetermined by a power analysis. Instead, our study was designed as a consecutive case series, which included all eligible patients presenting with a periorbital mass during the defined 12-month study period. This design provides a realistic and unbiased representation of the clinical experience and outcomes at our institution for this specific patient population over that timeframe. We have added a statement to this effect in the 'Methods' section.

Changes in the text: Page 9-10 Line 134-145

Comment 7: Clarify whether inclusion was consecutive and whether data collection was prospective.

Reply 7: We thank the reviewer for this expert suggestion. Our study was indeed conducted as a retrospective, consecutive case series. We have integrated this point with the previous comment, and the combined clarification is now comprehensively presented in the 'Methods' section for your review.

Changes in the text: Page 9-10 Line 134-145

Comment 8: Define the primary and secondary outcome measures explicitly.

Reply 8: We sincerely thank the reviewer for this valuable suggestion. In response, we have incorporated a new subsection titled "Outcome Measures" within the Methods section of our revised manuscript. This addition provides an explicit definition of our primary and secondary endpoints, thereby offering a clearer and more focused framework for the objectives of our study. We are grateful for this insightful comment.

Changes in the text: Page 11-12 Line 171-177

Comment 9: Lines 91–92: Specify follow-up duration with precision rather than a vague range (1–12 months). This is imprecise and inadequate for evaluating recurrence or scar quality.

Reply 9: We thank the reviewer for this valuable suggestion. In response, we have precisely reported the follow-up duration in the revised manuscript. The initial assessment was typically scheduled around 5 months postoperatively to evaluate early wound healing and initial scar status during the proliferative phase, with subsequent follow-ups arranged as clinically indicated, resulting in a comprehensive observation period of 5 to 16 months. We have replaced all descriptive scheduling details with objective follow-up metrics (median, IQR, and range) throughout the text, as this provides a more rigorous and scientific characterization of the study timeline.

Changes in the text: Page 10 Line 148-158

Comment 10: Line 166: Report mean follow-up duration and standard deviation.

Reply 10: We thank the reviewer for this valuable suggestion. Upon precise calculation of the follow-up duration for all pediatric patients, we determined that the data followed a non-normal distribution. Consequently, we have reported the median and interquartile range (IQR) in the revised manuscript, as these measures provide a more appropriate representation of the data's central tendency and dispersion. We kindly invite the reviewer to examine these revisions.

Changes in the text: Page 16 Line 252-254

Comment 11: The discussion largely reiterates the results without substantive comparison to existing literature.

Reply 11: We sincerely thank you for your valuable feedback. In response, we have undertaken a comprehensive revision of the manuscript, which includes a complete rewrite of the Discussion section and a thorough re-evaluation of the cited references. This revision aims to more clearly highlight the positive implications of our study while also providing a balanced and critical acknowledgment of its limitations. We hope that these extensive modifications meet with your approval.

Changes in the text: Page 17-25 Line 274-401

Comment 12: Address the additional operative time required for instrument preparation and assess the benefit of the operative channel in relation to scar size compared with standard endoscopy.

Reply 12: We sincerely thank you for your valuable suggestions. We have thoroughly addressed all the points you raised in the revised Discussion section and hope that our responses and modifications meet with your approval.

Changes in the text: Page 22-23 Line 354-371

Comment 13: Line 211: Reference 27 relates to thyroid lesions and should be removed.

Reply 13: We sincerely thank you for your valuable feedback. In response, we have undertaken a comprehensive revision of the manuscript, which includes a complete rewrite of the Discussion section and a thorough re-evaluation of the cited references. This revision aims to more clearly highlight the positive implications of our study while also providing a balanced and critical acknowledgment of its limitations. We hope that these extensive modifications meet with your approval.

Changes in the text: Page 17-25 Line 274-401

Comment 14: Line 211: Justify the claim of reduced hospitalization costs despite increased operative time and additional equipment use.

Reply 14: We sincerely thank you for your valuable suggestions. We have thoroughly addressed all the points you raised in the revised Discussion section and hope that our responses and modifications meet with your approval.

Changes in the text: Page 23-24 Line 372-385

Comment 15: Line 224: Replace references from other anatomical regions with those relevant to benign frontal and temporal lesions.

Reply 15: We sincerely thank you for your valuable feedback. In response, we have undertaken a comprehensive revision of the manuscript, which includes a complete rewrite of the Discussion section and a thorough re-evaluation of the cited references. This revision aims to more clearly highlight the positive implications of our study while also providing a balanced and critical acknowledgment of its limitations. We hope that these extensive modifications meet with your approval.

Changes in the text: Page 17-25 Line 274-401

Comment 16: The literature review is imbalanced (23 of 28 references in the introduction, only 5 in the discussion). Redistribute or add relevant references to strengthen the discussion.

Reply 16: We sincerely thank you for your valuable feedback. In response, we have undertaken a comprehensive revision of the manuscript, which includes a complete rewrite of the Discussion section and a thorough re-evaluation of the cited references. This revision aims to more clearly highlight the positive implications of our study while also providing a balanced and critical acknowledgment of its limitations. We hope that these extensive modifications meet with your approval.

Changes in the text: Page 17-25 Line 274-401

Comment 17: Correct all reference formatting to meet the journal's style (e.g., ref 12: missing authors; ref 10: missing journal name; ref 24: unclear term; ref 25: incomprehensible journal name).

Reply 17: We sincerely thank you for your valuable feedback. We have now updated the reference formatting throughout the manuscript to fully comply with the journal's style guidelines.

Changes in the text: Page 28-32 Line 455-595

Comment 18: Lines 8–9: Delete "With the advancement and innovation …" as the technique is established in pediatric surgery.

Reply 18: We thank the reviewer for this correction. We have deleted the phrase "With the advancement and innovation of..." as suggested to provide a more direct and accurate statement.

Changes in the text: Page 2 Line 9-12

Comment 19: Lines 25–29: Include recurrence data in the results section.

Reply 19: We thank the reviewer for this suggestion. We have now included the recurrence data in the Results section of the Abstract as advised.

Changes in the text: Page 3 Line 30

Comment 20: Line 34: Replace "frontal-facial mass" in the keywords with an anatomically precise term.

Reply 20: We thank the reviewer for this precise suggestion. We have replaced the vague term "frontal-facial mass" with the more anatomically precise descriptor "Periorbital Mass" in the keywords.

Changes in the text: Page 3 Line 38

Comment 21: Line 47: Remove the redundant sentence "the frontal-facial region, one of the most…".

Reply 21: We thank the reviewer for this suggestion to improve conciseness. We have removed the indicated redundant sentence as advised.

Changes in the text: Page 6 Line 82-85

Comment 22: Lines 54–68: Consider shortening this paragraph for concision; emphasize the relevance of endoscopy for subcutaneous lesions due to its minimal aesthetic impact.

Reply 22: We thank the reviewer for these insightful suggestions. We have significantly shortened and refocused the paragraph on the history of endoscopy. Moreover, we have added a sentence explicitly highlighting that "the technique's paramount relevance for subcutaneous lesions lies in its capacity to minimize visible scarring through concealed incisions" which directly aligns with the core objective of our study.

Changes in the text: Page 7-8 Line 91-109

Comment 23: Line 135: Remove "the excised mass was reviewed by parents"—unclear and of limited value.

Reply 23: We agree with the reviewer that this statement is unclear and does not add scientific value to the manuscript. We have removed it as suggested.

Changes in the text: Page 14 Line 219-210

Comment 24: Line 91: Specify the types of complications assessed.

Reply 24: We thank the reviewer for this valuable suggestion. In response, we have integrated the specification of complications into the description of our follow-up protocol, which now also incorporates the precise follow-up duration as previously advised. We kindly invite the reviewer to examine these consolidated revisions.

Changes in the text: Page 10 Line 148-158

Comment 25: Line 155: Add "after histopathological examination".

Reply 25: We thank the reviewer for this precise comment. We have amended the sentence to clarify that the confirmation of complete excision was based on the gold standard of histopathological examination.

Changes in the text: Page 15 Line 240-241

Comment 26: Line 157: Provide standard deviations for operative times.

Reply 26: We thank the reviewer for this suggestion. We have now provided the standard deviations for the operative times in the Results section.

Changes in the text: Page 15-16 Line 243-244

Comment 27: Line 161: Replace "d" with "day".

Reply 27: We thank the reviewer for this precise correction. We have replaced the abbreviation "d" with "day" as suggested.

Changes in the text: Page 16 Line 247

Comment 28: Lines 162–165: Define cost calculation parameters.

Reply 28: We thank the reviewer for this critical comment. We have now added a new subsection in the 'Methods' entitled "Cost Calculation" to explicitly define the parameters and components included in the total hospitalization cost analysis. This ensures full transparency and reproducibility.

Changes in the text: Page 11 Line 160-169

Comment 29: Line 167: Confirm whether no edema or ecchymosis occurred in endoscopic cases.

Reply 29: We thank the reviewer for prompting this clarification. We can confirm that upon review of the clinical records, no cases of postoperative edema or ecchymosis were documented in the endoscopic group. We have amended the results text to explicitly state this finding.

Changes in the text: Page 16 Line 254-258

Comment 30: Line 174: Specify numbers for each scar management method, timing of laser therapy, and justify its use within the stated follow-up window.

Reply 30: We thank the reviewer for these precise requests. We have now provided a detailed breakdown of the scar management modalities in the revised Results section. We have specified the number of patients for each treatment type (topical silicone only: 15; combination therapy: 2), reported the timing of laser therapy initiation, and justified this timing by aligning it with the standard management protocol for early hypertrophic scarring. We believe the revised text now fully addresses your query.

Changes in the text: Page 17 Line 263-270

Comment 31: Line 191: Remove reference 21 (transoral endoscopic approach—irrelevant here).

Reply 31: We sincerely thank you for your valuable feedback. In response, we have undertaken a comprehensive revision of the manuscript, which includes a complete rewrite of the Discussion section and a thorough re-evaluation of the cited references. This revision aims to more clearly highlight the positive implications of our study while also providing a balanced and critical acknowledgment of its limitations. We hope that these extensive modifications meet with your approval.

Changes in the text: Page 17-25 Line 274-401

Comment 32: Table 2: Provide standard deviations for operative times, define all abbreviations, and replace "intervene scar" with an appropriate term.

Reply 32: We sincerely thank you for your insightful and professional review of our manuscript. In direct response to your feedback, we have revised Table 2 to enhance its clarity and precision. The specific amendments include providing the standard deviations for the operation duration, defining all abbreviations, and replacing the term "intervene scar" with the more clinically appropriate "Received anti-scar treatment". Furthermore, we have reformatted the entire table to improve its logical flow and visual

presentation, thereby significantly facilitating reader comprehension. We trust that these revisions fully address your valuable comments.
Changes in the text: Table 2

Comment 33: Figure 1: Consider including an intraoperative view of the device in situ, with and without the operative channel (optional).
Reply 33: We thank the reviewer for this valuable suggestion. Unfortunately, we do not have an intraoperative photograph of the device in situ that clearly shows the view with and without the operative channel, as this specific comparison was not captured during the surgical procedures described in this study. We have, however, taken note of this excellent idea and will ensure to document such views in our future studies to enhance the visual presentation of our work.

Comment **34:** Figure 2: Indicate the side shown.
Reply 34: We extend our sincere thanks for your expert review comments. In response, we have revised Figure 2 to clearly indicate the affected side of the pediatric patient. Additionally, the figure legend has been updated to accurately describe the lateral orientation of the patient relative to the viewer. We hope that these modifications meet with your approval.
Changes in the text: Figure 2
Page 27 Line 434-435

Comment 35: Figure 6: Report follow-up duration for each patient.
Reply 35: We sincerely thank you for your valuable feedback. In response, we have revised the figure legend for Figure 6 to provide additional details, including the specific follow-up time at which the clinical photograph was taken and the anatomical side of the pediatric patient shown in the image.
Changes in the text: Page 27 Line 443-446

Recommendation:
Major revision required before the manuscript can be considered for publication. The study has merit but must be reframed within the context of existing literature, with methodological details clarified and overstatements removed.

Reviewer B

The study presented is an interesting case series of 46 paediatric patients who underwent neurosurgical surgery for frontal facial masses. The study design and the 'new' surgical procedure are clearly explained, and different clarifying images are included. The article is certainly worthy of publication, but I would like to make a few points before that:

Comment 1: Firstly, it is unclear whether the patients were included retrospectively or prospectively. This should be specified in the 'Material and Methods' section.

Reply 1: We sincerely thank you for your valuable comments. Our study is a retrospective case series of consecutively enrolled patients. We have now integrated this information into the 'Methods' section of the revised manuscript for clarity.

Changes in the text: Page 9-10 Line 134-145

Comment 2: In the entire manuscript, the proposed surgical procedure is referred to as the 'new technique', as are the tables. I suggest choosing a descriptive name for the procedure.

Reply 2: We sincerely thank you for your valuable feedback. Recognizing this limitation, we have formally named our technique "Endoscopic Resection of Pediatric Periorbital Masses Using a Novel Subcutaneous Operative Channel" to accurately reflect the integration of our self-developed subcutaneous channel into the endoscopic procedure. This descriptive name has been adopted in the revised manuscript title and throughout the text.

Changes in the text: Page 3 Line 34-35

Comment 3: In the results paragraph, at line 160, please specify 'aneurysm'. Is it an aneurysmal vascular lesion of what vessel?

Reply 3: We thank the reviewer for this important question. Based on the detailed pathological and immunohistochemical report, we have specified the diagnosis in the manuscript. The lesion was a thrombosed arterial aneurysm. The immunoprofile (CD34+, CD31+, F8+) confirmed its vascular endothelial origin. However, the specific vessel of origin was not identified in the pathological report.

Changes in the text: Page 16 Line 246

Comment 4: In the conclusion paragraph, particularly in the final three lines, I would recommend using less absolute terms and specifying that further studies, possibly multicentre and inclusive of frontal neoformations of larger dimensions, are necessary to ascertain the true potential of the described technique.

Reply 4: We sincerely thank you for your valuable suggestions on our manuscript. We have thoroughly rewritten the original conclusion section in the revised manuscript. In accordance with your recommendations, the new conclusion now provides a more cautious summary of our key findings, clearly outlines the necessity and direction for future research, and identifies specific avenues for technical refinement. We hope the revised version meets with your approval.

Changes in the text: Page 25-26 Line 404-415