RoboticScope (Robotic Microscope) Assisted Primary Cleft Palate Surgery:

A Pilot Retrospective Cohort Study

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Introduction

The use of RoboticScope, a head-mounted display, provides a minimally invasive approach with the potential to improve surgical outcomes, reducing trauma and scarring.

Methodology

Comparison between four pediatric patients who underwent conventional palatoplasty and another four patients utilizing the RoboticScope.

Objectives

Comparing duration of surgery, use of analgesia, post-operative oral intake, length of admission, and short-term complications.

Scan to see the RoboticScope in practice!

Results and Discussion

Intraoperative blood loss: Both groups had minimal to none, pain levels were minimal, scar was intact, and none required revision surgery.

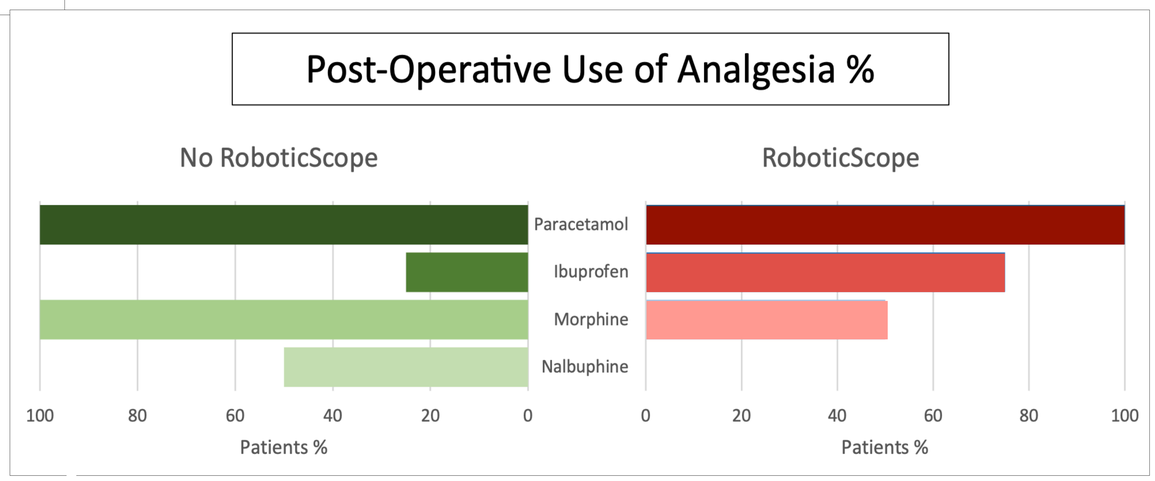
Operation Duration: RoboticScope-assisted cleft palate repair took an average of 28 minutes longer than the conventional method (121 minutes vs. 93 minutes respectively).

Post-Operative Analgesia: Most patients in the conventional group required opioids, while fewer patients in the RoboticScope group did, as demonstrated in the graph.

Hospital Stay Duration: Two patients in the RoboticScope group were discharged one day earlier.

Post-Operative oral Intake: Three out of four patients in the RoboticScope group demonstrated good oral intake, while three out of four patients in the conventional group showed poor oral intake.

Post-Operative Complications: One patient in the conventional palatoplasty group had dehiscence of the uvula.



Conclusion

RoboticScope-assisted palatoplasty is safe, feasible, and effective, offering less use of opioids, better oral intake, and shorter hospital stay. Limitations include a small sample size, retrospective analysis, and subjective surgeon data.

References

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