

# Postoperative complications following dental rehabilitation under general anesthesia in Rhode Island July to October 2024.



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**INTRODUCTION**

Caries is the most prevalent disease of childhood. Many children wait several months to be treated in an OR setting due to severe early childhood caries (ECC), medical conditions or age-appropriate uncooperative behavior. These long wait times often manifest in the child experiencing pain, swelling and loss of school time. Many find themselves in a hospital emergency room (ER) which contributes to an already overwhelmed health care system. Children undergoing dental rehabilitation under general anesthesia often experience postoperative symptoms. This study aims to investigate the most common postoperative complications of pediatric dental GA procedure including: pain, nausea, bleeding, and difficulty voiding.

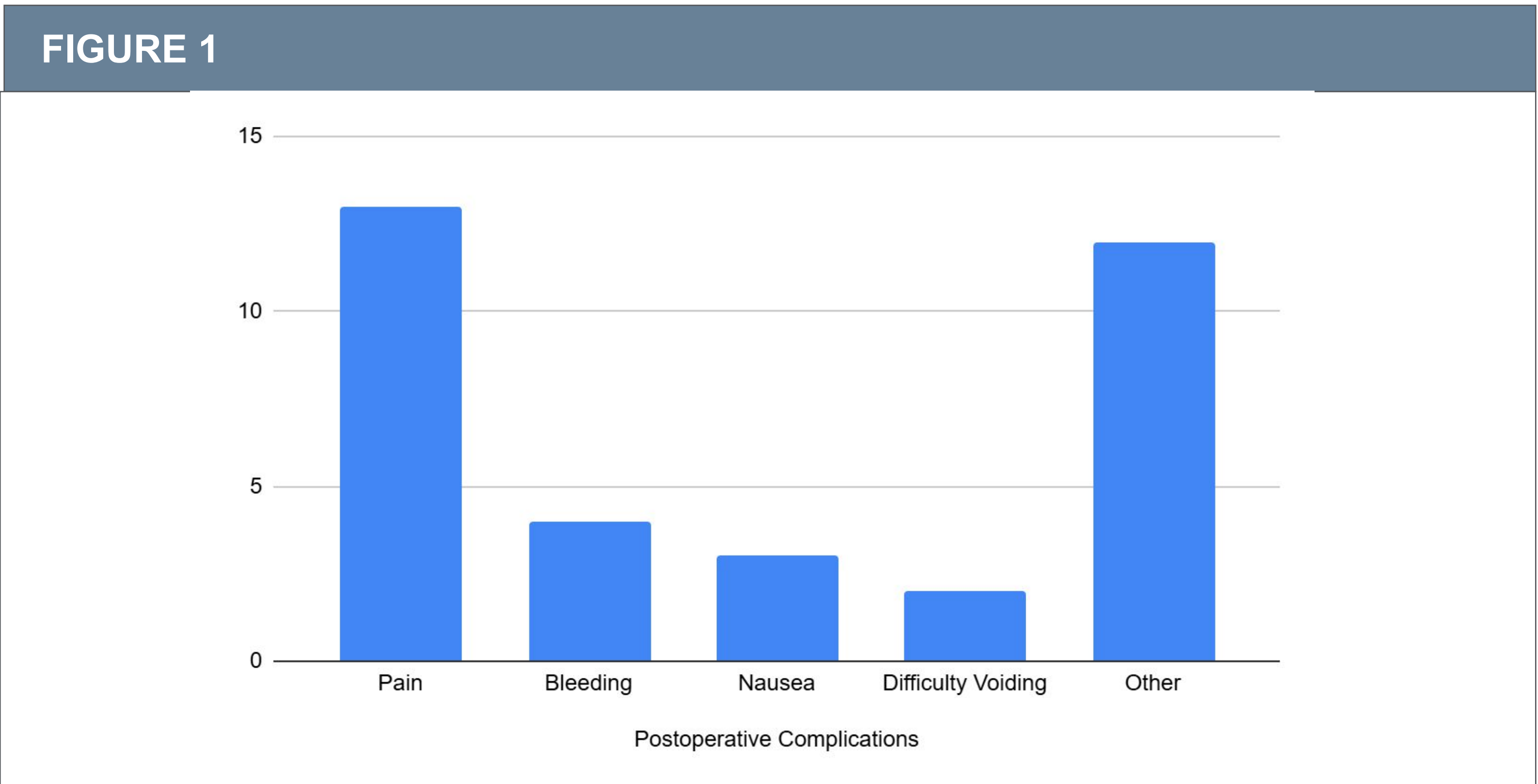
**PURPOSE**

Pediatric patients who have been diagnosed with severe early childhood caries are often referred for full mouth rehabilitation under general anesthesia (GA). The primary objective of this retrospective chart review is to examine postoperative complications following dental rehabilitation under general anesthesia in Rhode Island 2024. We hypothesize that the most common postoperative complications following pediatric dental rehabilitation under general anesthesia including: pain, nausea, bleeding, and difficulty voiding.

**METHOD**

This is a single-site retrospective chart review study of healthy patients in Rhode Island, ages 3-12 years who received comprehensive dental treatment under GA at Our Lady of Fatima Hospital between 7/1/2024 and 10/31/24 (4 months). Our Lady of Fatima Hospital is the location where GA cases are completed by NYU Langone pediatric dental residents.

Univariate analysis of all variables was conducted. Mean (SD) and n (%) were reported for continuous and categorical variables, respectively.



**TABLE 1**

<b>Patients</b>	<b>N = 67</b>		
<b>Average Age (yrs)</b>	6	<b>Pain</b>	13 (19%)
Standard Deviation (yrs)	2	<b>Bleeding</b>	4 (6.0%)
<b>Gender</b>		<b>Nausea</b>	3 (4.5%)
Female	32 (48%)	<b>Difficulty Voiding</b>	2 (3.0%)
Male	35 (52%)	<b>Other</b>	12 (18%)
<b>Satisfied</b>		<b>Complications Number</b>	
Yes	65 (97%)		0 42 (63%)
No Response	2(3%)		1 18 (27%)
<i>n (%)</i>			2 5 (7.5%)
			3 2 (3.0%)

**RESULTS**

126 pediatric patients completed full mouth rehabilitation under GA from 7/1/2024 and 10/31/2024, 59 were unreachable by for follow-up by phone, and 67 were available for follow-up by phone. This time span included 40 OR days. Average age was 6 years old. Gender breakdown was 48% and 52% female to male respectively. 97% of respondents were satisfied with surgery. From most frequent to least frequent postoperative complication, 19% reported post operative pain, 6% reported bleeding, 4.5% reported nausea, 3% reported difficulty voiding. 18% reported other postoperative complications including: runny nose, slight cough, difficulty swallowing, vomiting, headache, stomach ache, and bruising. 63% reported no complications, 27% reported one complication, 7.5% reported two complications, and 3% reported three complications.

**CONCLUSIONS**

The most frequent postoperative complication was pain (19%), followed by followed by bleeding (6%), nausea (4.5%), and difficulty voiding (3%). That pain was the most common complication is consistent with previous studies and literature. One limitation of the study is the time frame of when patients were called, ranging from 12 to 72 hours post surgery. Future study directions can explore the effect of preoperative education on the perception of postoperative complications, such as education on differentiating mild pain vs. severe pain, mild bleeding vs. excessive bleeding.

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