Retrospective Review: Multiple General Anesthesia Experiences in Young Children

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INTRODUCTION

- Early childhood caries (ECC) remains one of the most prevalent chronic and transmissible diseases in children globally [2]
- In 2012, a North American online survey revealed an 88% increase in requests for dental anesthesiologist services in the past ten years [6]
- ECC is an aggressive and multifactorial disease with a high relapse rate [8,9,10]
- Studies reported a 79% caries recurrence rate in children who underwent treatment under GA; 17% of these patients required a repeat GA intervention within two years.

PURPOSE

- Characteristics of children who undergo general anesthesia (GA) and require repeat operative treatments due to failing restorations
- To understand which treatments are more prone to failure, and which treatment modalities provide longer term success.
- Determine if age is a factor in the need for repeat treatment due to restorative failures from the initial GA appointment

METHOD

- Retrospective analysis of children who received initial GA treatment followed by subsequent treatment under GA
- Charts reviewed of children ages 1.5 to 8 years, between 2017-2020
- Data collected included age, gender, appointment dates, appointment types and treatments completed

FIGURE 1

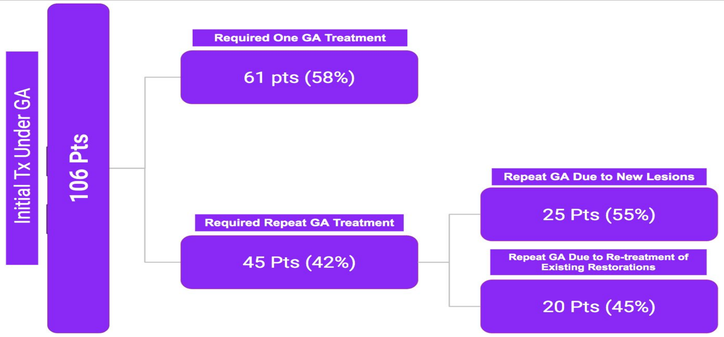
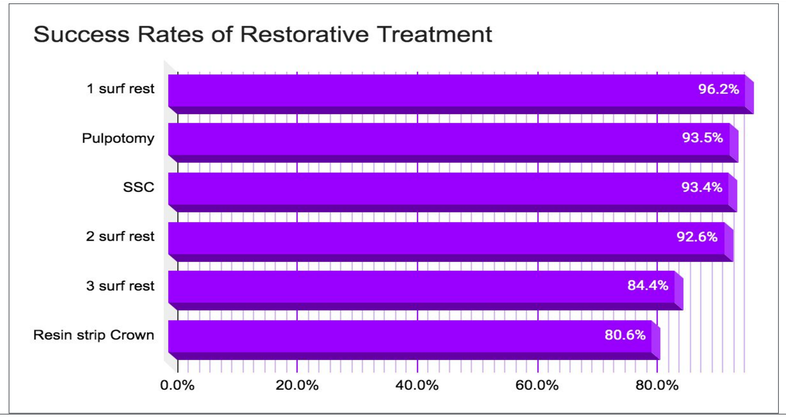


FIGURE 2



RESULTS

- Of the 106 patients, 42% of Patients needed follow-up treatment under GA
- 45% of repeat GA patients required re-treatment of existing restorations
- The mean age of children requiring re-treatment under subsequent GA was 4.4 yrs (SD 2.4)
- The mean time interval between initial and subsequent GA appointment was 1.1 yrs.
- Treatment success rates ranged from 81%-96% with SSC and 1 surface restorations requiring the least amount of re-treatment.
- Anterior resin strip crowns required the most re-treatments.

CONCLUSIONS

- Current restorative treatments show a high percentage of success over a three year time period.
- Stainless steel crowns and 1-surface resin restorations should be preferred over multi surface restorations.
- Caries risk management protocols should be emphasized to prevent caries relapse and restorative failure.
- Improved follow up protocols could help increase the time interval between initial GA and repeat treatment under GA.

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