Improving Behavior Using a Novel Dental Isolation System

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Introduction

When employing adhesive techniques, effective isolation of the working field is a crucial requirement for better prognosis. The Dry Shield isolation (DSI) system is a newly suction isolation system proposed alternative to rubber dam isolation (RDI).

Published studies indicate that suction isolation systems reduce chair time compared to RDI and are also associated with greater patient satisfaction.

Purpose

The purpose of this case series is to illustrate how the DSI system enhances patient behavior by reducing chair time and increasing comfort.

Dry-shield isolation system

The DSI system provides retraction, suction, assists in opening the mouth and stabilizing it, retracting and isolating one side of the oral cavity simultaneously. It is an "all in one" isolation system that performs all the functions of a high suction evacuator, a bite block, a lingual shield, and an oral pathway protector in a single device.



Case Series

1. Case 1

- 5 year old male patient, Frankl-2 scale
- Severe allergic rhinitis
- Severe early childhood caries
- Deciduous Dentition
- Underwent surgery under general anesthesia at the age of 4, where he was treated for dental caries

RDI was used to resolve pulpitis in tooth 5.3 and in a subsequent session DSI was utilized.



This transition allowed the patient's behavior to improve from Frank-2 to Frank-3, as breathing better was facilitated and it expedited the resolution of cavities in the other quadrants, reducing chair time.

2. Case 2

8 year old female patient, Frankl-2 scale Diagnosed with severe attention deficit hyperactivity disorder (ADHD)

Multiple caries in primary molars.
Mixed dentition fase II

The use of DSI facilitated quick caries resolution, improving the patient's behavior from Frankl-2 to Frankl-3.

Tell show and do with the stuffed animal was also utilized as a management technique. Additionally, distraction with audiovisual media such as music was used





Conclusion

In both cases the use of DSI facilitated a faster and more comfortable clinical work for the patients, showcasing how the use of new technologies can enhance children's behaviors while doing oral restorations.

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