

REVIEWER'S REPORT

Manuscript No.: IJAR-55687

Title: Comparative evaluation of titanium nitride coated crowns and sandblasted stainless steel crowns with conventional stainless steel crowns in primary dentition- an in vivo study

Recommendation:

Accept as it is

Accept after minor revision...

Accept after major revision

Do not accept (*Reasons below*)

Rating	Excel.	Good	Fair	Poor
Originality	Excellent			
Techn. Quality	Excellent			
Clarity	Excellent			
Significance	Excellent			

Reviewer Name: Dr. Sumathi

Detailed Reviewer's Report

- 1. Titanium nitride (TiN)-coated crowns are dental restorations, often for children's primary teeth, featuring a very hard, gold-colored ceramic layer applied to a metal crown (like stainless steel) to significantly increase its surface hardness, wear resistance, and durability, making it stronger, more biocompatible, and longer-lasting against biting forces.**
- 2. This coating provides a biocompatible, low-friction, gold-like finish that resists corrosion, reduces bacterial colonization, and helps maintain the crown's integrity over time, improving clinical outcomes.**
- 3. Sandblasted stainless steel crowns are tough, pre-formed metal caps used in pediatric dentistry to restore severely decayed or damaged baby teeth, providing a durable, long-lasting seal that protects the tooth until permanent teeth emerge.**
- 4. The "sandblasting" process roughens the crown's surface (often with aluminum oxide) to improve adhesion for bonding with composite resins, creating a stronger bond for aesthetic layering (veneering) and better micromechanical retention. They are a cost-effective, one-**

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visit solution for large cavities or full-mouth rehabilitation in children who struggle with oral hygiene.

5. Full-coverage restoration in dentistry, typically a crown, is a prosthetic cap that encases the entire visible part of a damaged or weakened tooth, restoring its shape, size, strength, and function, often after extensive decay, fractures, or root canals, and can also improve appearance. It acts like a helmet for the tooth, protecting it from further damage and allowing it to function normally with good oral hygiene.
6. An in vivo primary dentition study examines "baby teeth" (primary teeth) directly in living children, focusing on their unique characteristics, development, and treatment needs, such as eruption patterns, wear, color, root canal treatments (pulpectomy), or the effects of different materials, using real patients and clinical observations rather than just models or extracted teeth. These studies assess real-world factors like tooth color, wear resistance of crowns, lead content in enamel, and the success of treatments like fillings in actual children.
7. Key words are good but can be added more.
8. Abstract and methodology part are awesome with meaningful.
9. Result part is excellent with significant points.
10. Summary points can be given.
11. References should be in alphabetical order.
12. After a small changes good to publish in your journal.