Interim Therapeutic Restorations and Early Childhood Caries

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What are Interim Therapeutic Restorations (ITRs)?

• AKA Atraumatic (Alternative) Restorative Treatment (ART)
• Developed 3 decades ago in Tanzania (1)
• Endorsed by WHO and PAHO as ATR and IHS as ITR
• Goal: controlling decay when other options aren’t feasible or until they become feasible
How Is ITR done?

• Basic process:
  • Scoop out caries
  • Apply glass ionomer into cavitation
  • Seal all other grooves with glass ionomer

• Glass ionomer:
  • Fluoride rich and rechargeable
  • Promotes remineralization
  • Relatively strong
What Does the Research Say About ITRs?

• Bonds to caries affected dentin (2)
• Glass ionomer lessens oral *S. mutans* (3)
• Longevity similar to amalgam in primary teeth (4)
• Healthier pulps when crowned after ITR (5)
• Lower rates of secondary caries (1)
• Overall 2-3 year survival rates, however, range from poor to good (1, 4, 6, 7)
But the Research is Not Conclusive......

• Sampling methods vary greatly
• Populations vary greatly
• Some retrospective studies
• Some *in vitro* studies
• Few studies with true control groups
• LACK OF AI/AN RANDOMIZED CLINICAL TRIALS
The Indian Health Service Promotes ITRs

- IHS Early Childhood Caries Collaborative (8)
- Five year surveillance and prevention promotion project achieved:
  - More early access
  - More sealants
  - More fluoride varnish treatments
  - More ITRs
  - But no significant decrease in caries
My Personal Experience with ITRs

- Lessens food impaction, sensitivity and lesion growth
- ITR helps maintain teeth with large lesions until crowns can be done
- Fewer pulp exposures and less pulpal pathology
- Slows down caries in hypomineralized teeth
- Can be performed with minimal cooperation
Should Dentists Treating AI/AN Children Use ITRs?

YES..... ITR is a valuable tool

And it’s not that difficult
References