

# RIVA STAR AQUA - A NEXT GENERATION WATER BASED SOLUTION TO ARREST CARIES

## AUTHOR:



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Dr. Garg has worked in Oral Health and Public Health since 2012. His career working in low-resource, rural, and remote settings in Australia and overseas has provided insight into the value of innovations for communities most in need of dental care.



## CASE STUDY:

This was a 19 year old male patient who attended the practice for treatment. He had recently finished high school and began a part time job. Finances were an issue. However, he was motivated to improve his oral health and would like to maintain his teeth for the long term.

On examination there were several teeth with primary and secondary caries. 16 had an O restoration which was failing. Leaking margins and secondary caries were present.

Radiographs, pulp sensibility testing with cold, percussion and periodontal assessment were carried out. Tooth 16 was asymptomatic to all tests. Periodontal health was deemed to be good. Some gingival inflammation was noted.

A significant amount of time was spent discussing general prevention strategies through daily F- exposure, brushing and flossing techniques. Further reinforced with education on caries and periodontal disease processes.

16 was treatment planned and patient was offered a number of restorative options. Patient chose to manage caries and have restoration.

Treatment was carried out on 16 under local anaesthetic and rubber dam. Upon removal of previously placed restoration extent of secondary caries was greater than radiologically expected. Explained to patient the impact of this on the tooth and prognosis for restoration. Patient was provided with option of removal of as much caries as possible and application

of 2 step Riva Star Aqua [Silver Fluoride and Potassium Iodide] as part of caries management process.

Patient was provided risks and benefits. Main benefit was the potential for arresting caries into the long term and preserving maximum tooth structure. 16 is a critical tooth for masticatory function, occlusal scheme management and aesthetics. Main risks discussed were staining of tooth and possibility caries may not be completely arrested. Also explained initially there would be a temporary restoration overlying treated caries.

Patient was provided a consent form, discussed in detail any concerns. Patient noted the ability to arrest caries and preserve tooth was the main driver for going through with treatment. In particular due to his young age and needing to utilise this tooth for a significant amount of time into the future.

16 O caries was removed using slow speed round burs, Riva Star Aqua Step 1 [Silver Fluoride] applied **(Image 2)**, rubbed in with microbrush until colour change noted on all aspects of dentine **(Image 3)**, Riva Star Step 2 [Potassium Iodide] followed and application time was based on the white exudate **(Image 4)** being removed completely (approximately 2 minutes), colour change was noted after this step, RIVA SC was placed overlying the cavity. **(Image 5)**

The patient returned after 3 weeks for a review. Pulp sensibility testing with cold, percussion and periodontal assessment were carried out. Tooth 16 was

asymptomatic to all tests. Periodontal health was deemed to be good. Gingival inflammation had also resolved. There was very minimal staining noted. The patient provided he was not aware of any major aesthetic changes to the tooth. Patient was quite happy with the treatment and pleased the tooth did not have any caries remaining in tooth.

Patient was again reviewed a week later and nil symptoms were noted. Patient remained pleased with treatment.

## CONCLUSION:

Riva Star Aqua is an excellent addition to a clinician's tool kit. With appropriate training and education, it is a valuable option for preserving teeth in dentition for longer. Patients appreciate the opportunity of saving their teeth and having more time to work towards improved oral health.

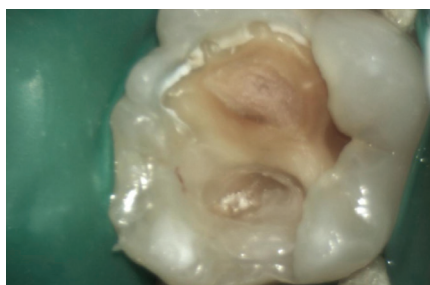


Image 1

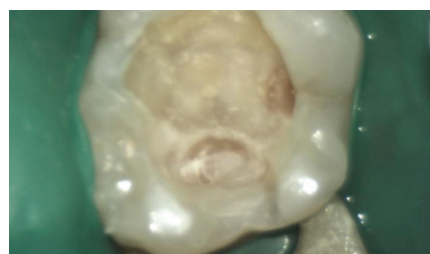


Image 2 Application of Riva Star Aqua Step 1 on page 2

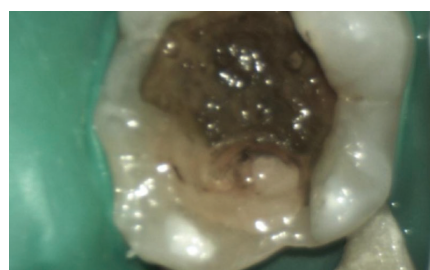


Image 3 Post application of Riva Star Aqua Step 1 - Colour change is obvious with caries present.

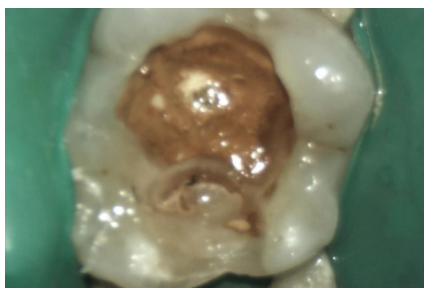


Image 4 Riva Star Step 2 applied. White precipitate has turned clear.

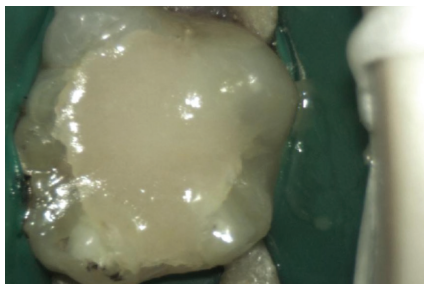


Image 5 Application of Riva GIC



Image 6 Completed restoration

## PRODUCTS USED



## RIVA STAR AQUA



## RIVA SELF CURE

COMPOSITES | GLASS IONOMERS | TOOTH WHITENING  
EQUIPMENT | CEMENTS | ADHESIVES | SDF RIVA STAR  
ETCHANTS | SEALANTS | AMALGAMS | ACCESSORIES



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