

3MSM Health Care Academy

Successful use of an aesthetic bulk fill material.

by Tommaso Brunelli, Italy.

Date of Original: November 2018 - 3M Dental Magazine

When a young patient presented a mandibular left first and second molar in need of a direct restorative treatment, an opportunity arose to treat the problem with a time efficient, one-step modelling technique using bulk fill material. There was a challenge though: the patient's second molar had not completely erupted, which made isolation difficult. To hold the rubber dam in place, a steel rubber dam clamp was stabilised with wings created using flowable composite. The procedure won 3M and Stylelitaliano™'s ONE&ONLYBULK Contest, demonstrating it is possible to simplify posterior restoration procedures while delivering reliable, aesthetically pleasing results.

In 2016, three weeks before I graduated in Dentistry at the University of Brescia, I had the pleasure to attend an intensive Stylelitaliano™ workshop in Santa Margherita Ligure in Italy. The direct restoration techniques taught and practiced there and the materials used were so convincingly easy and promising that I immediately decided to implement them in my daily work procedures.

In order to continuously improve my skills, I followed Stylelitaliano™ on Facebook and regularly experimented with new techniques and materials promoted by the group. This is where I learned about the launch of 3M™ Filtek™ One Bulk Fill Restorative, which I instantly wanted to test. Using it in the clinical environment, I discovered that it is capable of simplifying posterior restoration procedures – especially when combined with the essential lines technique developed by Stylelitaliano™.

It is this technique that also played a decisive role in my clinical case that won the ONE&ONLYBULK Contest powered by Stylelitaliano™ and 3M. After having decided to participate in this European contest that invited young

dental practitioners to post a nice case on Facebook, I first focused on case selection. A case that caught my special attention was that of a young patient whose mandibular left first and second molar were in need of a direct restorative treatment. The specific challenge was caused by the fact that the second molar had not completely erupted so that isolation was difficult.



Figure 1: Pre-operative view: Both molars show carious lesions and need to be restored with resin composite.

The problem was solved by use of a steel rubber dam clamp stabilised with flowable wings, as shown in the following. In this context, the use of a simple and time-efficient one-step modelling technique was particularly beneficial.



Figure 2: Isolation with rubber dam, which is difficult to achieve due to incomplete eruption of the second molar. In order to hold the rubber dam in place, the rubber dam clamp is stabilised ...

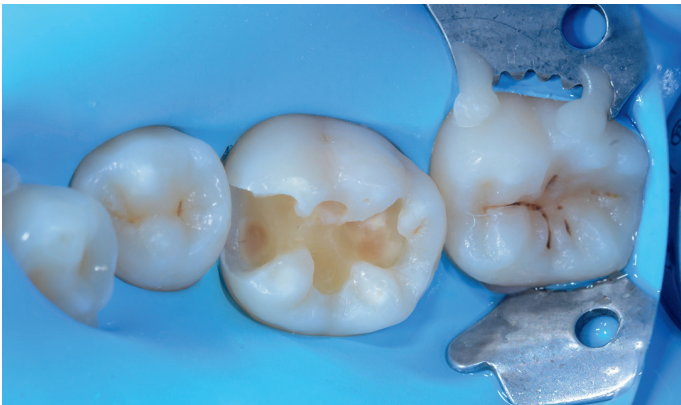


Figure 3: ... with wings created using flowable composite. This figure shows the result of caries excavation and cavity preparation on the first molar as well as cleaning of the cavity.

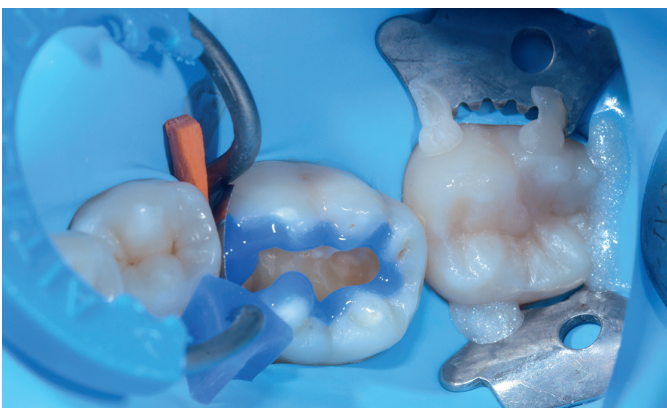


Figure 4: Selective enamel etching with 3M™ Scotchbond™ Universal Etchant. The second molar has already received a restoration made of 3M™ Filtek™ One Bulk Fill Restorative in the shade A2 using the essential lines technique including bulk filling (one-step modelling technique).

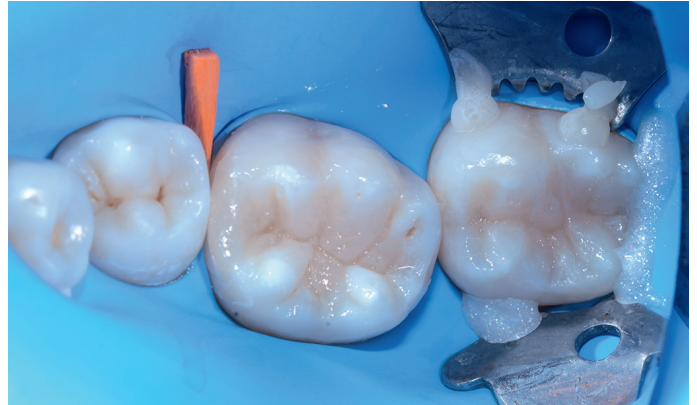
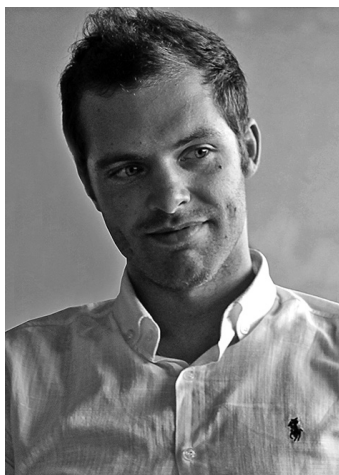


Figure 5: Situation after the application of 3M™ Scotchbond™ Universal Adhesive, build-up of the mesial wall, and filling of the cavity on the first molar with 3M™ Filtek™ One Bulk Fill Restorative in the shade A2. The occlusal anatomy was created and fissures were added with specific instruments.



Figure 6: Treatment result one week after the treatment completed by finishing, polishing and checking the occlusion.



Tommaso Brunelli

Tommaso Brunelli graduated in Dentistry from the University of Brescia in October 2016. Since then, he has been working in different private practices in Bergamo and Brescia, with a focus on restorative dentistry and endodontics. In June 2018, he became the first prize winner of the ONE&ONLYBULK Contest powered by Styleitaliano and 3M.

This case was also published on Facebook and www.styleitaliano.org.

Contact:

👤 Tommaso Brunelli
✉ tbrunelli91@gmail.com

Contact 3M

Australia

3M.com.au/dental

New Zealand

3M.co.nz/dental

Scientific Affairs

Stephen Langdon

Email: sdlangdon@3M.com

Janice Pitt

Email: jpitt3@3M.com

3M Health Care Academy



3M Oral Care

3M Australia Pty Limited
Building A, 1 Rivett Road
North Ryde, NSW 2113
Ph: 1300 363 454
3M.com.au

3M New Zealand Limited
94 Apollo Drive
Rosedale, Auckland 0632
Ph: 0800 80 81 82
3M.co.nz

Published by 3M Oral Care. 3M, "3M Science. Applied to Life." and Expertise are trademarks of 3M. 3M Health Care Academy is a service mark of 3M. All other trademarks are owned by other companies. Please always follow the 3M Product Instructions For Use for best clinical results. © 3M 2019. All rights reserved.