



Are you in the game for the long run?

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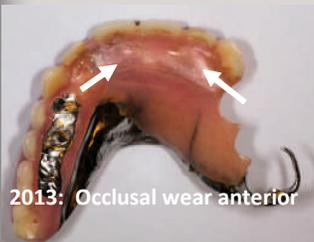
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RUBINOFF PROSTHODONTICS

SHITE HAPPENS!
Sometimes, you have to
change the game plan to
accommodate
catastrophic change!

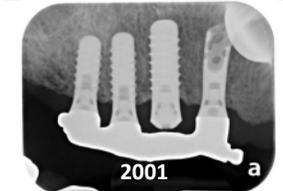
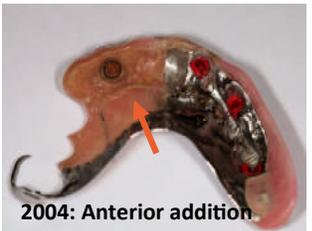
Case History: 2001 Treatment

Our patient is a Jamaican gentleman with a long history of periodontal problems. He received ongoing periodontal care from Dr. Ken Hershenfield. Implants were previously placed in the upper right quadrant and an upper fixed\ detachable prosthesis was inserted in the upper right quadrant in 2001. Heavy occlusal forces mandated the placement of occlusal metal in the upper right posterior region on the prosthesis. (see enclosed photos). The prosthesis consists of a Bredent Bar with 2.2 mm studs and stud snaps. One implant was put to sleep as it was too far to the buccal to be used in the bar portion of the prosthesis.



Case History: 2004 Tx

Due to periodontal disease, our patient had three teeth extracted in the maxillary anterior region (#21,22,23). Modifications were made to the existing prosthesis including the placement of an additional implant in the region of #23 (in 2004). A locator was added along with teeth in the anterior region.



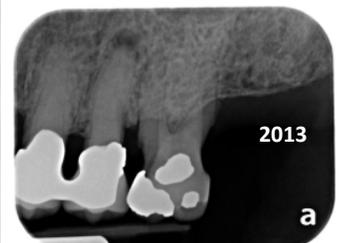
Case History: 2013 Treatment

A great island get away turned into a dental disaster. Our patient developed a problem while on vacation resulting in the fracture of his anterior denture teeth #12,11,21,22,23). With the help of a local dentist and "crazy glue", the anterior tooth alignment was altered. When the holiday was over, our patient returned to my office for definitive prosthodontic care. Our patient had significant financial concerns. **What can be done that will utilize existing prosthetics to decrease costs? How will we stabilize the dentition in lieu of all of the biomechanical changes in the dentition?**



Treatment Plan 2013:

- Endodontic referral for abutment #25
- Crowns #24,25 & post #25
- Locator abutment #22 site
- New fixed\detachable prosthesis in maxilla using alternative stud snaps for improved retention (red snaps due to metal wear on gold alloy snaps).



Rubinoff Prosthodontics

About my Lab Technician:

Masoud Niknejad of Picasso Dental Studios is a Master Ceramist. He maintains his own laboratory in Richmond Hill, Ontario.



2013 right lateral view



2013 left lateral view



2013



2013

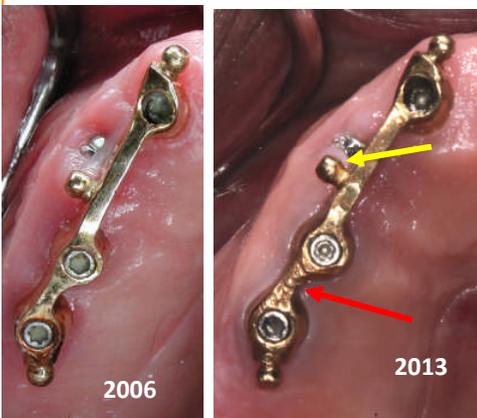


2013

DISCUSSION:

Time can take its toll on metals. The metal bar made of a gold alloy in 2001 has undergone wear and the yellow stud snaps (even new ones) fit loosely. By changing to a tighter fitting stud snap (red color), the frictional retention is significantly improved.

Occlusal trauma to the acrylic surface (palatal surface in premaxilla region) is now modulated with the aid of a cast chrome occlusal contact region with good effect against natural lower teeth.



2006

2013

IMPORTANT METALLURGY FOR YOUR PRACTICE:

If you want your implant bar to avoid wear, you have to use the correct metal. Your metal studs or gaskets should not wear or bend over years of function.

In my practice, we **now** use a "semi precious" alloy with a Vickers Hardness of 300. I recommend Argelite 71 by Argen. Dentists who use a popular high gold content alloy (such as Design 91 by Ivoclar) have a Vickers Hardness of only 250. Bego sells a popular non precious alloy made of chrome cobalt (no nickel or beryllium) with a Vickers Hardness of only 280. **For those using titanium alloy** (Ti-6Al-4V) as a milled or cast bar, the Vickers harness is even higher (350-369 if the metal is annealed during treatment).



Good metal for implant bars

Why not use fixed bridge for this case?

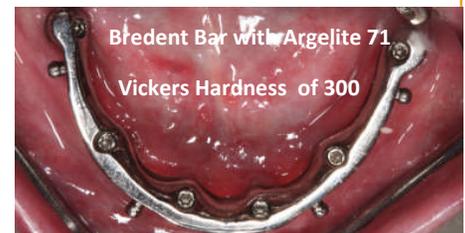
Our Jamaican patient used to have a fixed bridge in upper right quadrant. Our patient was nervous about investing in another fixed bridge. He opted for a fixed\detachable implant retained prosthesis as it is much easier to maintain and to modify a fixed \detachable prosthesis going forward. I agree!

Wear and Tear on Implant Bars:

If you look closely, you will definitely see metal wear between 2006 and 2013. This is a result of the cast chrome cobalt metal housing wearing down the bar (see red arrow) and the yellow nylon stud snaps wearing down the round studs (see yellow arrow).

Metals can under go "plastic deformation" and show signs of wear. In dentistry, we calculate the metal's ability to resist plastic deformation using a test that assesses the VICKERS HARDNESS

KNOWING THE RIGHT METALS TO USE IS JUST AS IMPORTANT AS KNOWING WHICH IMPLANT IS BEST FOR YOUR PATIENT!



Bredent Bar with Argelite 71

Vickers Hardness of 300



Cast Chrome\Cobalt housing