2022 International Academy of Mini Dental Implants

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CASE STUDIES

Todd E. Shatkin, DDS Andrea Joy Smith, DDS Alan Robinson, DDS Ronald Petrosky, DDS Harvey Chin, DDS James Tharp, DDS Ronald Petrosky, DDS



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MESSAGE from the PRESIDENT ANDREA JOY SMITH, DDS

ANDREA JUY SMITH, DDS



Greetings to the membership and all academy conference attendees.

Thank you for joining us and welcome to Washington, DC.

As the president of this forward thinking and ground breaking organization, I could not be more proud of the impact our group has had on the count-

less number of dentists who have dared to learn the mini dental implant innovative techniques.

Our greatest impact on the dental community has been the wealth of knowledge and experience that we, as a whole, continually accrue, document and share the success of the mini dental implant as we improve the quality of life of our patients.

Perhaps more importantly our contribution has vastly increased access to care to patients in ways that large conventional implantology cannot. Two-Thousand-Twenty-Two has proven to be another giant step forward for the advancement

of the mini dental implant paradigm. We welcomed several new members as well as promoted several existing members to fellowship, mastership and diplomats in the International Academy of Mini Dental Implants. Congratulations to the membership for a job well done. I look forward to serving as president this next year as we all continue to advance the mini dental implant paradigm.

Cheers! Your President, Dr. Andrea Joy Smith

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MESSAGE from the EDITOR

ALAN F. ROBINSON, DDS, MAGD, DICOI, DIAMDI, FAGD *President Emeritus of the IAMDI*



To my old friends,

I look forward to catching up! To new Friends I've not yet met , welcome to the 2022 Annual Session.

Another year into placing and restoring amazing, minimally invasive Mini Implants. We and our colleagues have placed thousands upon thousands of implants and restorations and have served many patients . We are collectively refining and advancing our art and science such that the minimally invasive methodology is becoming comparable if not superior to any other.

When one advances and shares, we all do. To all that contributed to the 2022 Journal, thank you. To those that did not, please plan now to share in the Journal next year a case or procedure that you solved or learned from. I guarantee you that it will help other Doctors.

Enjoy the meeting, the amazing group of Doctors that practice our art, and revel in the assembly of knowledge and experience here.

Thanks!

Table of Contents

Presidents Message - Page 3

Message from Editor - Page 5

Guest Speakers - Page 5

CASE STUDIES

Todd Shatkin, DDS

Editor's Blog

Alan Robinson, DDS

James Tharp, DDS

Matthew Lasorsa, DDS

Ronald Petrosky, DDS



CASE STUDIES COMBINING MINI IMPLANTS WITH OTHER TECHNOLOGY FOR SUCCESS

ALAN F ROBINSON, DDS FADI, MAGD, DICOI, DIAMDI

Minimally Invasive, Mini Implants are so versatile and successful such a high percentage of times that those of us that place many minis are somewhat taken back when they don't perform as we plan. We have all had cases where the patients have no options for stabilization of non functional dentures due to severe resorption or extremely poor morphology other than mini implant stabilization. When that doesn't perform, that patient has no options other than attempting to glue the denture in place with adhesive with no to very limited results.

I'm sharing a case of extreme resorption with previous conventional implants fitted with locator attachments which were non retentive. (Fig 1) Attempts were made to supplement the existing conventional implant retainers in difficult sites adjacent and in tandem with the locator attachments and most of the mini implants added were unsuccessful. Two lateral sinus graft surgeries were performed by my local Oral Surgeon to facilitate additional placement which was initially unsuccessful and finally yielded one successful placement.

In this case the existing locator abutments were replaced with Sub Surface Attachments (SSA) (Patent Pending) which have the same o ball attachments as mini implants and perform very well together. (Fig 2). There was one SSA attchment placed maxillary left in a conventional implant placed by me after several unsuccessful mini implant placements there in tandem with 2 mini implants and an



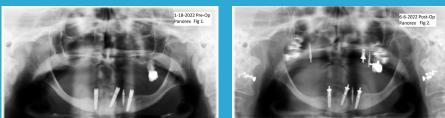


ERA attachment on the lone remaining tooth (#14) which was crowned incorporating the female ERA (Fig 3).

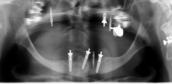
Three SSA attachments were placed on the existing mandibular conventional implants (which exhibit significant recession, but are presently stable) in conjunction with the long-standing single surviving supplimental mini implant. (Fig 4,5). The result is two very stable, functional and esthetic removable prostheses which the patient and I are very pleased with (Fig 6-9).

If at first you don't succeed, try, try and perhaps try again!





-Figure. 1



-Figure. 2



-Figure. 3



-Figure 4



-Figure. 5



-Figure 6





-Figure 8



-Figure 9



CASE STUDIES MARBLE BONE DISEASE AND MINI IMPLANTS: A CASE REPORT





JAMES THARP, DDS

A 77-year-old white male presented with a fixed bridge (# 27-23) that was hopeless and #26 was extremely mobile. He had an upper denture that was adequate and four lower teeth that did not need removal (#'s 22, 23, 24, and 25.) He said that wanted teeth on his lower that did not come out.

During the pre-clinical interview he asked if I knew what marble bone disease was.

I told him that I think so. The problem was that I had not heard of it since sophomore year dental school. A quick trips to google gave me the information I needed.

Osteopetrosis aka Marble Bone Disease

The bottom line is that it is a rare genetic disease that is characterized by lack of osteoclasts. This results in extremely dense bone that is prone to fracture. The lack of osteoclasts results in extremely dense bone with almost no marrow space or internal blood flow. (See radiograph one. This Is a cross section CBCT of the patient's anterior mandible.)

After radiographic and oral exam I consulted with the patient. There are no articles in the literature about placing implants in this type of bone. I told him that I did not know if any implants would survive in this type of bone. The reason is there is no blood supply to the internal part of the bone where the implant is placed.

Placing implants into extremely dense bone is hazardous because in order to grow new-bone around the implant you have to have blood supply.

It has been my experience in the past that placing implants into class one bone in the lower anterior region that I have to have less tightness, or more room around each implant to grow new bone. It is common to drill the pilot hole larger to accommodate bone that is very hard. Normally a 1.2 mm wide pilot hole is drilled for a 2.0 mm wide implant. In type one bone often the pilot hole is drilled to 1.5 mm wide for a 2.0 mm wide implant. These are usually drilled to 80% of the implant length.

We decided to drill 1.5 mm wide 100% of the length and 2.0 mm wide to 50% of the length. This would give the bone a better chance to grow in such dense bone.

The case was pre planned using Genoray software that comes with their CBCT.

Six red tubes of blood were drawn and prepared for L-PRF. Teeth *#*'s 26, 27 and 32 were removed with forceps and elevator. The sockets were scraped clean of all granulation tissue and rinsed with chlorhexidine gluconate. We placed 9 ShatkinFIRST implants in his mandible, positions of *#* 18-21 and *#* 26-30, all 2.0 mm wide and varied lengths from 13 to 18 mm long. The placement torque varied from 25 to 40 ncm with most around 30 ncm. All the implants were placed without the aid of a guide.

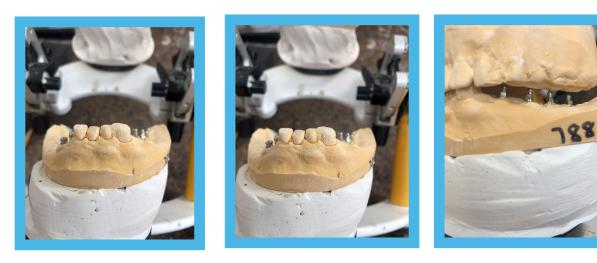
L-PRF exudate was rinsed in each socket and the implants were soaked in the same liquid before placing. After implant placement the L-PFR plugs were placed into the sockets around the implants. Shatkin First healing caps were placed and temporaries were fabricated in the mouth on the healing caps using thick composite ("rope"). Care was taken to make sure that there was no occlusal contact on the temporaries. A post op CBCT was taken to confirm proper placement of the implants.

After two months only one of the implants had loosened and it was removed.

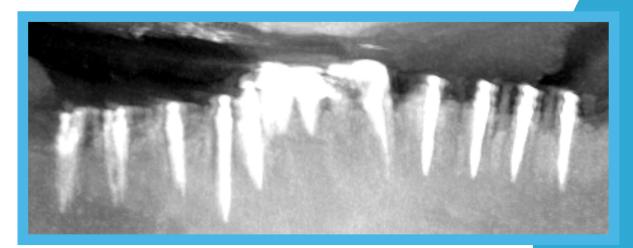
Two weeks later we impressed with Aquisil polyvinyl and sent the case to the ShatkinFIRST lab for fabrication of a plastic tryin. Three weeks later we tried the case in in plastic. The bite and contour were adjusted and sent back to be fabricated into Ceramic zirconium. Three weeks after that we cemented the splinted crowns using ShatkinFIRST resin cement.

After six months the splinted crowns are solid and healthy.









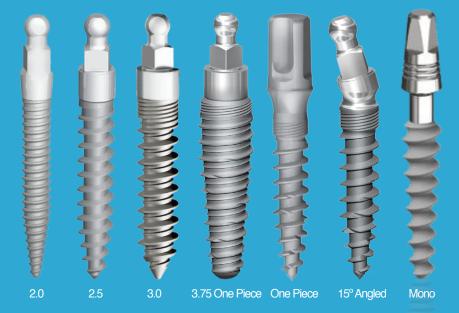
LESS INVASIVE



LESS

LESS PAIN

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Valdemar Blaszak Operations



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- Thick Oxide Layer
- Hydrophilic Surface Increases Wettability
- Site-Specific Surface Modification

Changing the Nature of Healing

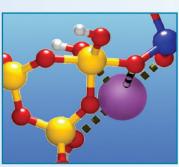
Numerous scientific papers have been published on OSSEAN[®]. They report the remarkable performance of this surface compared to others, particularly immediately after implant placement and during the initial phase of healing. The very nature of the healing chain has been reported to be changed and shortened^{*}.

Compressing the Healing Process

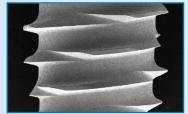
The most critical phase of implant treatment occurs from the moment an implant is surgically placed, through the first weeks of initial healing. It is in this period when most complications and/or adverse effects occur. This juncture also sets the stage for ongoing and long-term future implant success. Naturally, the importance of shortening this time by compressing the healing process is crucial*.

Documented "in-vivo" Study

Furthermore, this early accelerated healing process has been documented in "in-vivo" in a bone histological, gene expression, and nanomechanical study. The OSSEAN® surface was shown to play a critical role at the DNA level by favorably enhancing osteoblasts formation and accelerating the mineralization on the newly formed bone*.



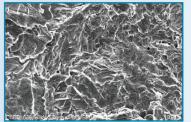
Calcium Phosphate in Molecular Fusion



Robotic Micro-Blasting Preserves Cutting Edge Geometry

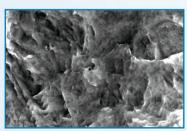


Multi-Process Cleaning Keeps Surface Free from Contaminants



Cellular Level -Enhanced Osteoblast Attachment





Molecular Level -Improved Fibrin Attachment



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The "NEW" Shatkin F.I.R.S.T.® Tru-Lok™ Snap on and prepable Abutments will revolutionize the way you cement crowns and bridges and on Shatkin O-Ball Mini Dental Implants. The patent pending Tru-Lok™ Abutment allows the dentist the ability to retrieve these restorations without any damage to the Shatkin O-Ball Implant and without having to cut off the restoration



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ZANTEX Fix on Six or Roundhouse Model 6-12 Implants



Suprastructure



Zirconia Roundhouse Model 10-12 Mini Implants



Fixed on Six Zirconia Model 6-12 Mini Implants Lower Denture Model *Upper & Crown & Bridge Models also Available



Hybrid Denture Model 6-10 Mini Implants



CASE STUDIES IMMEDIATE PLACEMENT OF IMPLANTS

BY RONALD PAUL PETROSKY, DDS, MAGD, DICOI



"All the forces in the world are not so powerful as an IDEA whose Time has Come ." Victor Hugo ,French Author of The Hunchback of Notre Dame (1831) & Les Miserables (1862)

That's certainly so true Victor from what I see ... Time & Time Again and, in my humble opinion, Immediate Placement of Dental implants is An IDEA Whose Time Had Come and should be mainstream in every implant practice ... or so I thought! It appears to me that some places "Didn't Get the Memo!" For example... This week ,I had a 30+ year old nurse with badly decayed hopeless teeth in the #6-7 are... who was told by AN-OTHER IMPLANT OFFICE that they would need to

• graft extractions site for 10 months

- then place the implant
- wait another 3 months to restore!

Well, that may be true and their 'MO' Method of Operation

in that office, practicing Like it's 1999,IMHO! But that proves to me yet again that ... All DENTAL IMPLANT OFFICES are clearly NOT created equal !! That Was Then...This Is Now !

Immediate Placement is Alive & Thriving... at least in my office it is! It's a PREDICTABLE 2022 SOLUTION that will present itself regularly in every busy implant practice .

If you're NOT routinely doing...Immediate Placements Then, I recommend you give it serious consideration. If you were missing your front tooth... you'd want something ASAP, and so do our patients!

We simply informed the patient...AFTER evaluating her CT Scan that she absolutely has plenty of bone (basal bone) BEYOND the root apex for a predictable



IMMEDIATE IMPLANT PLACEMENT (IPP) that should easily achieve the necessary initial PRIMARY STABILITY ... so essential for the success of any implant.

We routinely & successfully perform the IIP procedure with relative ease multiple times each week with MONO One Piece Bendable Implants from Noris Medical. We showed her Photographs & Radiographs of a similar... Before & After Actual Case to which she easily liked what she saw & heard ... & immediately agreed to treatment. It is certainly my opinion .:: that every implant office should be offering IMMEDIATE PLACEMENT as an option that is as predictable, yet more preferred than the Place & Wait 3-6 months Two Stage Approach. Can you personally imagine ... walking around & missing your front tooth...no way! THAT will stop anybody in their tracks!! Clearly, the patient wants to walk out...THE SAME DAY with their front tooth placed back with a FIXED temporary restoration. Therefore, being trained & prepared to offer this much needed IMMEDIATE PLACE-MENT PROCEDURE to the public ... same day if time permits, Is an obvious Win-Win for patient & doctor!

CASE IN POINT:

4-13 Zirconia Roundhouse

An elderly lady in her late 80's unfortunately tripped in a parking lot and knocked out her upper anterior four (4) unit fixed bridge ... teeth broken to the gum line!

The patient most definitely did NOT want any removable replacement and therefore consulted with us about implants. We offered immediate placement of four MONO One Piece Implants and temporary teeth in ONE VISIT .. to which she gladly agreed.

With virtually no bone to add any further posterior implants...

- We removed # 7-10 atraumatically with the Piezotome Cube & Physics Forceps
- We placed four MonoBendable implants & We were able to cantelever a few pontics for a beautiful

#4-13 Zirconia Roundhouse Bridge that the patient loved.



Bottom Line is that...more often than not...The MONO One Piece Implant will be the FIXED SOLUTION to many of your missing tooth problems for replacing missing

- Single Teeth
- Multiple Teeth
- Full Arch Restorations that come your way...especially with Immediate Placement. (At least for me it is!)

The 4 Stage Approach to ZR on 8-10

The Full Mouth MONO (One Piece) Zirconia Roundhouse Upper and Lower is at least for me a...'Clear Alternative Choice to All on Four'! When a patient first comes in for an

INITIAL CONSULTATION

I often find they are somewhat familiar with the All on 4 Option...but NOT the Zirconia Roundhouse on 8-10 MONOS because so few doctors are trained or even aware of such an option! When a VISUAL COMPARISON of actual models of both opinions are shown to a patient...

it's NOT rocket science to clearly see that the :

Zirconia Roundhouse on Eight-Ten Vs The All on Four (x)

- is MORE NATURAL LOOKING
- is MORE NATURAL FEELING
- is a BETTER FITTING REPLACEMENT

to replacing her natural teeth than the All on 4. From the doctors vantage point of avoiding the All on 4 Option...we can enjoy NOT dealing with loose screws NOT having to worry about dropping & losing those micro screws NOT dealing with higher incidence of peri-Implantitis At least that's my experience. We perform the ZirconiaRoundhouse procedure with a

4 STAGE APPROACH

so as...

- Not to overwhelm the patient
- Minimize discomfort in between visits
- · Allow for gradual loading in immediate placement sites
- Enable patient to avoid the area with Immediate placement to facilitate healing

A 4-STAGE Immediate Placement Approach to Restoring a MONO Full Arch Roundhouse Restoration on 8-10 MONOS for me is as follows: Since this involves IMMEDIATE PLACEMENT...extracting all teeth in one visit is generally TOO MUCH for patient and doctor, IMHO. Therefore , my patients and I prefer the 4 Stage Implant Placement Approach So, with the GOAL for placing at least 8 MONOS with 4 MONOS in the lateral to 2nd premolar position or 4 MONOS in the canine to first molar position dictated clinically as to where the ideal bone is available.

VISIT 1: UR POSTERIOR

Extract #3-5 & immediately place two or three MONOS

Out of occlusion....chew on other side.

Don't brush, waterpik site...will heal by itself.

VISIT 2: UL POSTERIOR

Extract # 12-14 & immediately place two or three implants

VISIT 3: UR ANTERIOR

EXTRACT & immediately place one or two MONOS Make a temporary

#3-8 chairside.

VISIT 4: UL ANTERIOR

Extract and immediately place one or two implants Make a temporary

#3-14 chairside.

VISIT 5: Four (4) WEEKS AFTER

last extractions to make a PMMA of what final prosthesis proposal may look like. After (8) WEEKS from last extraction...patient is ready for final impressions...preferably DIGITAL IMPRESSIONS which have so much more advantages over the PVS technique. That's what works for me... Hope that helps. We used NEXTEMP by Premier RETRIEVABLE TEMPORARY CEMENT should there be any issues in the future for

'RETRIEVABLILITY'

is the previous All on 4 technique main advantage over cemented implant roundhouse. My experience is that this cement appears to hold fine with no issues.

Dr. Petrosky Is this what you like to cement your permanent roundhouses with?

A: Yes Jeff...

When everything seems to be perfect & you think the patient is satisfied...it's always wise to be prepared for The Unexpected! In other words...what if AFTER you permanently cemented your fixed Zirconia Roundhouse on 8-10 MONO Implants with a RESIN cement...The patient comes back with whatever issues and wants changes..."My spouse said 'They're too light, too dark, too big, too small" and who knows what! NEVER,NEVER,NEVER ... do you want to have to DRILL OFF a Zirconia Roundhouse! That's the definition of a TOTAL NIGHTMARE !

I have had a few CLOSE CALLS that I resolved & concluded that using the NexTemp Temporary Cement holds quite well on those MONO abutments.

I haven't had to RECEMENT any of my many roundhouse cases to date. You want to do all you can to AVOID THAT SCENARIO

like the 'Bubonic Plaque'! I INFORM the patient & write on the chart that I used a temporary cement for the RATIONALE of **RETRIEVABILITY** just in case of any issues or traumatic accident whereby teeth are broken or fractured. Would be sooooooo much easier to remove!!! Retrievability is ... really the only 'advantage' of the All on 4 claim to fame...but the cemented roundhouse restoration is really soooo much better, IMHO! This protocol is for the All ISP ... All Implant Supported Prosthesis. For the TISP...Tooth-Implant Supported Prosthesis I would use a temporary cement initially for a week or two & make sure the patient is happy...Then use a RESIN CEMENT to minimize recurrent decay on the natural teeth. Another option is ... fabricate zirconium telescopic copings on any natural abutments ... & then use only the NexTemp cement.

A ZirconiaRoundhouse on Mini implants ... calls for that RESIN CEMENT since the height of the ball & square is obviously less surface area for retention. This OPINION is based on my experience as of 2022...and is subject to change as I'm always looking to CHANGE for the BETTER IF THERE IS A BETTER WAY.

ADVANTAGES OF IMMEDIATE IMPLANT PLACEMENT

(Info from various articles)

The immediate implant placement, first of all, REDUCES the number of surgical procedures. This fact is being POPULAR among patients and INCREASES their acceptance, that prefer to submit themselves into FEWER surgical interventions. According to the clinical way, implants in fresh extractions sites can be placed in the SAME LOCATION as the extracted tooth, minimizing the need for angled abutments and facilitating the positioning of the final restoration.

Osseointegration is also MORE FAVORABLE when placing implants immediately following an extraction. Width and height of the alveolar bone are PRESERVED. The procedure keeps contaminants away from the socket. Immediate placement of implants provides BETTER AESTHETICS for the patient. During the procedure, the bony receptors are preserved by ...

• PREVENTING ATROPHY of the alveolar ridge

• PREVENTING RECESSION of the mucosal and gingival tissues. So, generally, it STIMULATES PRESERVATION of GINGIVAL AES-THETICS. A SHORTER TREATMENT TIME s as well as CHAIR TIME also offers fewer clinics visits to contribute to the patient's comfort; they DON'T have to live in a transitional state with or WITHOUT TEETH. The ideal situation for the procedure...is where the infection-free, intact socket can be obliterated almost entirely by the implant.(11)

Rationale For Immediate Implant Placement

- 1. Treatment time is reduced
- 2. Amount of surgery is reduced
- 3. Width and height of the alveolar bone are preserved.
- 4. Ideal implant location can be achieved provided that the extracted tooth has a desirable alignment and there is maximum soft tissue support
- 5. Reduced surgical morbidity
- 6. Reduced treatment time and expense
- 7. Better patient acceptance Indications
- 1. Retained deciduous teeth
- 2. Non-restorable carious teeth
- 3. Vertical/Horizontal root fracture
- 4. Periodontally involved teeth
- 5. Chronic periapical/ periodontal infection
- 6. Fenestration defects

Q: Question from Dr Jeff Oswell:



















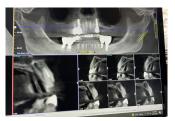




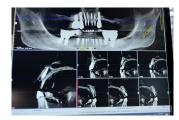






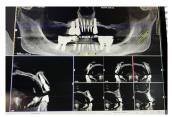


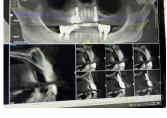




















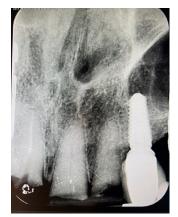








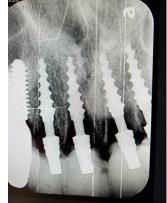














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CASE STUDIES MATURE ADULT SMILES WITH A MINIMALLY INVASIVE APPROACH

HARVEY H. CHIN, DDS, MAGD, FADSA, FICOI, FAAID, DIAMDI

Special emphasis in minimally invasive dentistry for mature adults. Private practice in Las Vegas, NV Dr. Kevin Major DMD - Associate

We are in a special time in the United States with a majority of our population reaching the mature adult baby boomer retirement stage. With over 50% of the population not seeing the dentist regularly, the number of patients with one or more missing teeth could easily fill our Allegiant Stadium in Las Vegas. Missing teeth bone naturally atrophies over time, leaving us clinicians to have less bone to treatment plan for traditional implants without additional procedures. These costly and invasive procedures include sinus lift, ridge split, and external types of bone grafting with the necessary periodontal procedures. Over 50% of patients that walk through our doors do not have the bone for traditional implants. So, the patient's awareness of the additional time (6-12 months) to complete the necessary procedure for traditional implants is usually not well received. Patients do not look forward to the pain, trauma, invasive procedures, etc. with traditional implant treatment and are looking for a reliable solution to their edentulous problem. Fortunately, dental implant therapy is a predictable long-term treatment option, in terms of implant survival, clinically acceptable peri-



After my 43 years of experience in implantology, I have seen the evolution in technology from invasive to minimally invasive procedures. The Staple Implant, Ramus Frame Implant, Blade Implant, and Subperiosteal Implants were my initial experience but I realized that patients did not like these procedures due to their intensity. Along the way, I began using the Bicon Implant. It's less invasive design, requiring less bone height was much better tolerated by patients.

In 2000, I experienced my first Mini Dental Implant case with surgical stent implants and immediate arch temporization. The patient was able to enjoy having teeth on the same day of surgery and was able to eat that very night. This minimally invasive procedure was similarly well received and tolerated by an increasing number of patients.

CASE STUDY

Today, I find that almost all my patients with atrophic ridges prefer having less surgical procedures in order to achieve their goal. With small diameter



implants, I am able to offer a variety of reliable treatment options that routinely gives patients a new smile at the day of surgery. A study of small diameter implants by Lemos et al. found; the 24 studies selected for review evaluated 1273 patients whose mean age was 65.93 years; these patients had received 2494 mini implants and 386 standard implants for retaining overdenture prosthesis. The mean followup time was 2.48 years (range: 1-7 years). There was a higher survival rate of mini implants (92.32%). All studies verified an increase in satisfaction and quality of life after rehabilitation treatment with mini dental implants. I offer treatments varying from full-arch overdenture/fixed-on-6 with multiple MDL minis to single-tooth replacement using minis or Mono, depending on the location. Using a minimum 4 and 6 mini implants can be considered a satisfactory treatment option for rehabilitation of the mandibular and maxillary arches respectively with a complete overdenture but I prefer to over-engineer and place a minimum of 8.

Please follow along through my minimally invasive cases with Mini Dental Implants to see the steps from implant consult to final patient presentation.

SOURCES:

2. Lemos CA, Verri FR, Batista VE, Júnior JF, Mello CC, Pellizzer EP. Complete overdentures retained by mini implants: A systematic review. J Dent. 2017 Feb;57:4-13. doi: 10.1016/j. jdent.2016.11.009. Epub 2016 Nov 22. PMID: 27888049.

CONCLUSION

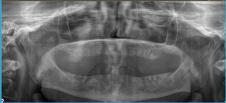
I believe less is more for our mature adult patients. Less is the use of minimally invasive procedures. like mini dental implants and mono dental implants for our mature adult patients. Minimally invasive treatment follows the KISS (keep it sweet & simple) principle and caters to our mature adult babv population. boomer With standard implant recare protocols, I've seen my patients enjoy they're new teeth for 5, 10, and 20 years after their initial implant placement. I am happy to be able to provide a solution to patients whom otherwise would require extensive dental work if traditional implants were their only option.

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PATIENT #1 - DARLA



-Fig. 1a. Pano & CBCT xray from implant consult (Darla 1)



-Fig. 1b. Pano xray after placement of upper implants (Darla 2)



Fig. 1c. Pano xray after placement of lower implants with completed upper (Darla 3)

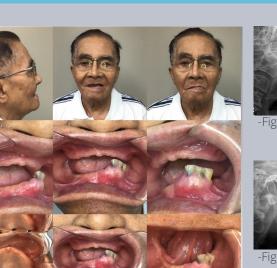


-Fig. 1c. Final upper and lower zirconia prosthesis (Darla 4)



-Fig. 1d. Patient presentation after treatment (Darla 5)

PATIENT #2 - AVELINO



-Fig. 2a. Pano & CBCT xray from implant consult (Avelino 1 & Avelino 2)





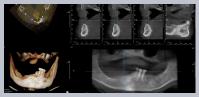
-Fig. 2b. Initial clinical presentation (Avelino 3)



-Fig. 2c. Pano xray after placement of upper minis (Avelino 4)



-Fig. 2d. Pano xray placement of lower minis and arch temporization (Avelino 5)



-Fig. 2d. Pano xray after delivery of upper and lower prosthesis (Avelino 6)



-Fig. 2e. Patient presentation after treatment (Avelino 7) Upper Fixed-on-6





PATIENT #3 - PEDENITO



-Fig. 5a. CBCT from implant consult (Pebenito 1)



-Fig. 5b. Post-op pano after placement of upper minis and arch temporization (Pebenito 2)



-Fig. 5c. CBCT planning of lower arch (Pebenito 3)



Fig. 5d. Post-op pano after placement of lower minis and arch temporization (Pebenito 4)



-Fig. 5e. Patient presentation after treatment (Pebenito 5 and Pebenito 6)

PATIENT #4 - WAYNE





Upper & lower Fixed-on-6 -Fig. 6a. Initial clinical presentation & CBCT from implant consult (Wayne 1 and Wayne 2)





-Fig. 6b. One week post-op from upper implant placement, #14 site implant lost into sinus from incorrect patient home care. (Wayne 3 and Wayne 4)



-Fig. 6c. Lateral window to retrieve implant (Wayne 5)



-Fig. 6d. Pano xray post-op from upper and lower placement after implant retrieval (Wayne 6)



-Fig. 6e. Patient presentation after treatment (Wayne 7 and Wayne 8)



CASE STUDIES FIX On SIX®- A Mini Dental Implant Alternative to the All-on-4®

Less Invasive, Less Time, Less Costly, & Less Discomfort Todd Ellis Shatkin, D.D.S. –

Private dental practice Buffalo, NY, Owner Shatkin F.I.R.S.T., LLC

Alysa Brooke Sadkin –Dental student, University of Pittsburg Dental School

INTRODUCTION:

Aesthetic dentistry has evolved throughout the past few decades, specifically in the field of Implantology. Patients are preferring endosseous procedures over dentures and other removable prosthetics in order to increase stability, increase comfort and decrease pain.¹ Conventional implants require several procedures, multiple appointments and upwards of a year until completion, although some newer techniques promote a faster completion time. The All-on-4® technique is an immediate conventional implant procedure, in which four large diameter implants, two in the anterior and two in the posterior, are inserted at a forty five degree angle in order to take advantage of the available bone and reducing the need for bone augmentation and/or sinus lift.² According to the Nobel Biocare All-on-4® treatment concept manual, a minimum of 5 mm in bone width and 8 mm in bone height is necessary to begin the procedure.³ Though the All-on-4[®] technique claims to eliminate the need for bone augmentations and sinus lifts, these procedures cannot always be eliminated if the bone quantity does not meet the requirements due to the large diameter of a conventional implant.1-2,4 While the All-on-4[®] technique offers acceptable support with four implants, the endosseous procedure is still invasive and time consuming compared to the immediate and early loading procedures used with mini dental implants. The All-on-4[®] often requires a minimum of four to six months before the final restoration is fully completed.⁴ In addition, if one of the 4 implants fails to integrate or fails following placement of the restoration, the entire restorative procedure must be restarted, additional surgery performed and the restoration remade. Considering the average fee for All-on-4® is in the range of \$30,000 - \$40,000 per dental arch, this technique is not affordable to the vast majority of dental patients.

Immediate and early loading endosseous procedures with mini dental implants are more desirable to patients in many instances because of the speed of completion, the affordable fee, the less invasive procedure and





the reduced post-operative discomfort.4 The small size of the mini dental implants (available in several lengths and diameters) eliminates the need for bone augmentation and/or sinus lifts. This is due to the fact that the mini dental implant can be angled into available bone rather than augmenting the bone.4 The Shatkin F.I.R.S.T®Technique (Fabricated Implant Restoration and Surgical Technique) (Patent USPTO #7,108,511 B; September 2006), developed by Dr. Todd E. Shatkin DDS, provides for the mini dental implant(s) to be placed and the restoration(s) cemented in one patient visit.8 Dr. Shatkin's most recent innovation, FIX On SIX®, offers a combination of the Shatkin F.I.R.S.T.® Technique using 6 - 8 or 10 mini dental implants with a 12 unit fixed detachable zirconia full arch restoration with O-ring implant housings. The restoration is only removed at recall cleanings as the dentist is able to snap off the FIX On SIX® restoration. The hygienist will then completely clean the implants, the restoration and the surrounding tissue and easily reinsert the restoration without patient discomfort. This FIX On SIX® procedure is completed in a fraction of the patient's and the dentist's time as required by the All-on-4® technique. The success rates of the immediate loading mini dental implant endosseous procedures are competitive with the All-on-4® technique. If one of the mini dental implants were to fail with a FIX On SIX® restoration, the failed mini implant can be easily replaced with a new mini implant and O-ring housing, placed in the same or different location. In addition, the FIX On SIX® restorations are considerably more affordable than the All-on-4[®], costing approximately a third to half of the cost. Consequently the FIX On SIX® restorations are more desirable to the patient due to their affordability, greater comfort, reduced treatment time and the less invasive nature of the procedure.

Fixed partial dentures are commonly supported by mini dental implants to provide a natural, aesthetic appearance for the patient. In recent years, Zirconium Dioxide (zirconia) frameworks have been used in dentistry for fixed restorations.⁵ The introduction of zirconia has allowed for the production of metal free prosthetics, by means of Computer-Aided-Design/ Computer-Aided-Manufacturing (CAD/CAM) technology. The result is improved aesthetics with increased success and reliability.⁶ There is also evidence that zirconia attracts less plaque accumulation preventing gingival problems.⁷ The architecture of these zirconia-based prosthetics enable superior strength and chewing resistance on the posterior teeth relative to other ceramics.⁸⁻⁹ Due to its favorable chemical composition



and mechanical properties, clinicians have been eager to use zirconia in implant-supported restorations after its continued success in tooth-supported restorations.¹⁰ The following Case Study presents a clinical report of mini dental implants with the FIX On SIX® Technique. The use of 6 – 8 or 10 mini dental implants allows for the functional and aesthetically pleasing zirconia fixed prosthesis to be supported. Using CBCT technology, a zirconia prosthetic restoration was created and fixed over Shatkin F.I.R.S.T. (by Intra-Lock) mini dental implants using O-ring housings processed into the zirconia framework.

CASE STUDY:

A 56 year old male patient with an upper denture presented himself at a consult on 5/13/2016. He had come to me from our TV marketing campaign. At the consult our new patient had a CT scan (using our Shatkin F.I.R.S.T. CBCT machine for pre op and postop scans), treatment plan and impressions taken for a FIX ON SIX® detachable-removable bridge. To minimize the discomfort and to eliminate the existing issues with his old denture, a zirconia bridge was prescribed and designed to fit on the mini dental implants that would be placed. Zirconia was chosen as the fabrication material due to its strength and durability and resistance to plaque. A treatment plan for placing 10 IntraLock MDL's in the Maxillary arch using the Shatkin F.I.R.S.T.® Technique for mini dental implant placement was chosen. He was asked to return in 2 weeks for his procedure and placement of a temporary bridge.

6-22-17 The patient returns, signs the consent form and was administered Topical (2 carps of septo w/ epi). A CT guided stent from Shatkin F.I.R.S.T. Lab was used and a Thompson marking pen was used to mark the position of the 10 implants using the CT guided stent. The Implants used were 9 Intra-Lock mini dental implants on the upper maxillary arch, size 25mm/15mm at #3,4,5,6,9,10,11,12,13 and one 25mm/11mm for #8. I used the CT guided stent through-out the procedure, removing it between final placement of each implant, using my patented F.I.R.S.T Technique (Fabricated Implant Restoration and Surgical Technique) (patent USPTO #7,108,511 B; September 2006). When finished placing all 10 implants using my Shatkin F.I.R.S.T. procedure I placed the housings and used A1 Luxatemp to create the Temporary Bridge. Patient liked the Temporary. Impressions were taken and sent to the Shatkin F.I.R.S.T. Lab. Two prescriptions (penicillin 500mg, Norco 51325) were sent to the patient's pharmacy and an appointment for two weeks was made for the delivery of the permanent "Fix on Six®" detachable removable bridge.

7-7-16 Patient returns, I removed the temporary and placed the "Fix on Six®" detachable -removable roundhouse restoration. The Fix on Six® restoration looked good, patient was happy. I provided the patient with a Shatkin Water Flosser and Sonicare toothbrush which I provide to all of my mini implant patients for hygiene. It has been a very successful tool in keeping tissue clean and free from food particles between checkups, when I remove the "Fix on Six®".

CONCLUSION:

This article presents an alternative to All-on-4® which is less expensive, less painful, less invasive, with faster results utilizing a superior dental material. FIX On SIX® offers patients a beautiful zirconia restoration which is removable by the dentist but provides the patients with the feel and aesthetics of a fixed prosthesis. Creating a fixed prosthesis which is able to withstand the occlusal forces applied, provide cosmetic appeal and patient satisfaction is an enduring task for all dentists.11 Today in dentistry, zirconia has traditionally been used in fixed partial dentures as tooth supported restorations.⁹⁻¹⁰ With most cases that use zirconia as a fixed restoration, high success rates have been recorded, most above 95%.9 Zirconia's ability to increase the durability of a prosthesis by up to 30-40% has made it a good candidate for use in hybrid fixed cases.¹¹ The use of CT technology increases zirconia's stability in conjunction with decreasing failure rates of these restorations, due to the industrial processing.

In this case study, the patient was dissatisfied with his upper denture because of cracks in the acrylic along the palate, the dentures were not comfortable to wear and food would trap under the dentures. By designing a fixed zirconia bridge (FIX On SIX[®]) instead of acrylic dentures or a hybrid acrylic fixed bridge, the patient will no longer have these negative experiences. The use of zirconia instead of acrylic increases durability of the prosthesis while also offering the comfort of fixed restoration and healthier surrounding gingival tissues

^{*}All-On-4® is a registered patent owned by Nobel Biocare® developed

together with Paulo Malo, DDS, PhD, at MALO CLINIC. ** Fix-On-Six® is a registered trademark owned by Shatkin F.I.R.S.T. developed by Todd Ellis Shatkin, DDS.

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Figure 2. Dental model made using the impression taken at the consult appointment.



Figure 3. The tissue was marked using a Thompson marking pen through the surgical guide stent to get a visual for placement of the mini implants.



Figure 4. Holding the CT guided stent still in preparation of placing mini implants.



Figure 5. Using the Shatkin F.I.R.S.T. Pilot Drill Guide and 20:1 MDL Contra Angle Driver to make Pilot hole.

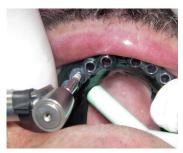


Figure 6. Placing mini dental implant through the CT guided stent with 20:1 handpiece.



Figure 7. Fully seating the mini dental implant after removing the surgical guide stent.



Figure 8. After placing the first 5 mini dental implants, the clinician checks for proper alignment.



Figure 9. The 10 mini dental implants were placed in the maxilla. Notice the bottom of the square is level with the gingiva, and the ball and square are above tissue.



Figure 10. Placing all 10 micro metal housings on the mini dental implants.



Figure 11. Final restoration before placement of o-rings.



Figure 12. Fixed on 10 final restorations with o-rings placed in restoration.



Figure 13. Verification of final zirconia restoration fit.



Figure 15. Final CBCT and panoramic radiograph.

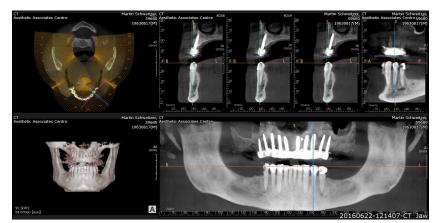


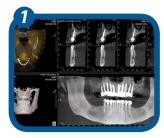
Figure 1. CBCT scan from consult.



Shatkin F.[®].R.S.T.[®] Fix on Six[®] Procedural Guide

2

4







Lab sends to the Doctor the CT stent, implants, drills & custom tray bite rim





3 Doctor places implants then takes impression in bite rim and sends to lab

Doctor grinds out existing denture and places PVS impression







7

5 Lab makes PMMA try-in and sends back to office.

material as temporary liner to implants.

Office inserts try-in to check: occlusion, midline, canting, shape, and design of teeth. Dentist may modify try-in at this time.





Once try-in is accepted, the office sents to lab for final bridge to be fabricated.





8 Place final restoration over housing and pick-up housing using Shatkin F.I.R.S.T.® resin cement.

*Dr. Shatkin recommends taking a Shatkin F.I.R.S.T.® Mini-Dental Implant training course before performing these procedures.



CASE STUDIES THE ONE-PIECE DENTAL IMPLANT: LIFE CHANGING

ANDREA JOY SMITH, DDS

Dr. Andrea Joy Smith, President International Academy of Muni Dental Implants

Since 2007, I have been performing the onepiece dental implant procedure for my patients, rarely have I encountered a situation where this procedure has not been an absolute positive life changing event. Placing well over 7000 one-piece implants over the past 15 years has given me the experience to make these transformations routinely. The young lady you will meet in this case study is no exception.

FINDINGS The subject is a 33-year-old female Medical History: Unremarkable Meds: none NKAD Chief Complaint Embarrassed to smile, "I don't let my husband see my teeth, I never smile" **Difficulty Speaking Difficulty Chewing** Teeth are Mobile Teeth do not mee properly Loss lower front teeth & amp; more are loose enough to come out Afraid of loosing more teeth without a plane for replacement Mouth Sores Poorly fitting lower partial Want to smile again Dental History:



After having her children, she felt her teeth started to "go bad". She ignored her teeth and focused on raising her children. When she felt her teeth starting to get loose, she stopped brushing them all together. "I just gave up", she said, "but now that the children are older, I want to smile again. I want my husband to see me smile for the first time in years."

DENTAL FINDINGS:

Generalized Advanced Adult Periodontitis Heavy Supra and Sub-gingival tarter, heavy plaque Misaligned teeth All teeth are non-restorable Treatment Plan Full Mouth Extraction of remaining teeth Upper Implant supported Denture Lower Implant Supported Denture **Procedure Sequence** Consultation: Pre-op CT, FMX, Photos, Presentation of Treatment Plan & amp; Alternative options Pre-op records taken for fabrication of immediate healing denture Day of Surgery: 23 Extractions, 8 Maxillary Implants, 4 Mandibular Implants, Healing Denture Delivered Retro-fit Immediate dentures to accommodate housings to retain the denture Pick-up with Soft Reline Material



Figure 1 : Pre-op Panoramic Radiograph



Figure 2 : Pre-op Smile - Retracted View

DENTURE RETRO-FIT PROCEDURE:

The denture was fabricated before the removal of the teeth and placement of the Implants.

The lab was asked to trough the tissue side of the denture to accommodate housings.

After removal of the teeth and before the implants were placed. The dentures were checked intra-orally for fit and occlusion. A bite registration record was made as a fitting reference point to be verified once implants were placed and housings picked up.







Figure 4 : Light Body pick-up of Implant Locations

DISCUSSION:

When a 33-year-old female goes from giving up on herself completely, because her teeth are an embarrassment, to a person who can now smile with confidence, something close to miraculous has occurred. The miracle in this case was the one-piece dental implant to support complete dentures. This relatively conservative procedures accomplished many goals. First, the patient is a lot healthier having removed twenty-three (23) infected teeth. Second, she can now smile be proud of her smile and allow her husband to see her smile for the first time in years. Third, the implants will allow the patient to avoid the denture adhesives that many denture wearers dread. While with the patient in this article we achieved a great outcome and she was extremely happy with the procedure, patient selection, was as much a key to the success of this case as the procedure itself. There have been instances where a case was procedurally within normal limits and the surgical success of the case was achieved, however, the patient is not happy with the outcome. There are patients who are just not mentally prepared for the healing process or cannot tolerate the feel of a denture base covering their tissues or they feel as though there is "too much" in their mouth. In these cases, either the patient did not realize what having a denture would feel like (how could they since this is their first time having a denture) or their expectations are simply different from what they were thinking. Patient selection is the key to recognizing this type of patient, hopefully before treatment begins. In my office we use demonstration models during the consultation and all options of fixed and removable are presented. However, often the patient chooses the least expensive option, the removable implant



supported denture. believing that it will give them what they are looking for only to find that they are not happy with the appliances. They will find an issue with every aspect of the appliance. After all their initial concerns are addressed, they focus on something else. There is nothing that can be done to please this patient.

Here are a few pre-operative red flag statements that I have heard from these impossible to please patients. 1. I want all my teeth removed so that I will not have to ever come back. Right away the patients' expectations must either be reset or the case should not start. 2. I am having a face lift next week and I want my teeth done first so that after my face lift everything will already be done. This patient needs to be made aware of the healing process, among other things. 3.



Figure 5 : 3D Rendering Post Implant Placement



Figure 6: Pre-op Smile Figure 7: Post-op Smile

CONCLUSION:

One-Piece Implants are changing the lives of patients in hundreds of dental offices around the county and abroad. The one-piece conservative implant technique should be offered by thousands of dentists to improve the quality of life for millions of patients. Patients deserve this option. However, it must be realized that patient selection is a big factor in the success of the case. The advancement of this new Implant Paradigm is my main priority as President of the International Academy of Mini Dental Implants.

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