american academy of gold foil operators

Gold Leaf

September 2009

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Executive Council
2009 – Dr. Rick Nash
2010 – Dr. Marc Tollefson
2011- Dr. Janet Zinter

Minutes AAGFO Board Meeting
February 25, 2009
2-5 PM Embassy Room, Fairmont Hotel, Chicago, IL

I. Call to Order - Ed Kardong

II. Minutes of Previous Board Meeting – November 2008
Approved as printed

III. Secretary – Treasure's Report- Reports previously emailed and reviewed- approved. Our current membership stands at 229.

IV. Annual Meeting Reports - Joe Newell -2009 clinical – U. of Fl has now agreed to hold the clinical session through the efforts Henry St. Germain and Craig Bridgeman. Concerns still persist concerning patients [10-12] and we hope to get some help from Dan Henry. [Admiral Vinci was contacted regarding procuring patients from Jacksonville Naval Station.] Currently the clinical session is planned for Friday morning.

Scientific Sessions – Henry St. Germain. The 2008 Clinical Session - I worked closely with Dr. Jerry Sparks who was the Clinical Program Committee Chair from the local Phoenix ARVTSC. Dr. Sparks obtained all of the local patients for our clinicians and sent clinical photographs to each operator. The Clinical Program included both AAGFO and ARVTSC clinicians and was held at the Mercer Center of the Scottsdale Center for Dentistry on Saturday, November 15th. There were 16 chairs available in the Mercer Center and shared between the AAGFO and ARVTSC. Our AAGFO clinicians for the AAGFO/ARVTSC Phoenix meeting included: Drs. Ted Kanamori, Barry Evans, Dave Thorburn, Dan Henry, Ron Dahl, Bruce Small, Al LaPorta, and Dick Tucker, Jr. They performed a variety of direct gold procedures including class 1, 2 & 5's. Dr. Wendell Foltz and his wife coordinated the photographs for the clinic critique that followed lunch that day. Our first joint AAGFO/ARVTSC meeting showcased gold restoration procedures by our outstanding clinicians!

2009 Academic Session - The following speakers planned are Mike Cochran, Fred Eichmiller and Ivor Mjör will do the first Jose Medina memorial lecture. Clyde Roggenkamp will speak on integrating foil into the dental curriculum.

Education & Clinical Seminars – Rick Nash will handle the Master Class CE program. Dr. Sam Low, is the contact person for Rick's program.

Literature & Research – Marty Anderson - no report

Nominating Committee – Dave Thorburn presented a slate for consideration. [Pres. Kardong announced post meeting that Dan Henry has accepted the nomination as the 2012 Council member.]

Constitution & Bylaws – Barry Evans- Moved to submit a change to the title of the Council to *Executive Board* so we are consistent with other academy organizations. A vote on the changes will be taken at our annual meeting with the warning for that vote to be published in the September issue of the Gold Leaf.

Inter-Academy Liaison – Ed Kardong- Reported that our CEU's will now be handled by the JOD. [See New Business]

Distinguished Member – Allen Osborn- Craig Bridgeman was nominated as the 2009 Distinguished Member. He was approved unanimously by the council.

Outstanding Clinician – Dan Saucy- Dan Henry was unanimously approved by the council as the Outstanding Clinician for 2009.

Annual Meeting Facilitator
Ron Harris – Florida – The Gainesville meeting is on track.
Joe Newell/Rick Nash - 2010 – UCLA is all set for October 20-23, 2010
2011 - Penn is out and we will be looking at the New Jersey Dental School, UMDNJ or Temple where Dr. Juan Arocho is a AAGFO member.

V. JOD Editorship– Mike Cochran- He submitted his editor's report which was distributed and accepted as printed. The new JOD editor is Dr. Jeff Platt, the Ralph Phillips Chair of Dental Materials at U. Indiana.

VI. Report of the Journal – Tim Carlson- Managing Editor's Report was accepted as distributed. The Journal is on sound financial footing.

VII. Web Page Report – Scott Barrett- The Gold Leaf can now be found on the website as a word and a pdf link. Scott requested clinical shots from the 2008 annual meeting. Presently just under 2,000 'hits' have been made to the site.

VIII. Gold Leaf Report – Rick Brinker- January/ September issues will be the two publishing dates as long as he is able.

IX. Old Business
ADA/CERP accreditation- Kevin Matis reconfirmed the details of the new system during the JOD Board meeting.
ACTION: Voted to recover the cost of $1 per attendee and $1.50 per actual certificate needed by members. There will be paper work requirements by the scientific session council member and the secretary, but this is a far better solution to receiving CEU credits.

X. New Business- Future Meeting Planning/ Planner- Ron and Laverne Harris have stated that they wish to retire after the 2009 meeting. It was voted to honor Laverne and Ron Harris for their 16+ years of service to our academy. The Council is actively seeking new planners.

XI. Other Business-
AOD ANNUAL TABLE CLINIC – voted to cover the over budget cost of the new table clinic banners. Rick Nash will cover the table at the 2010 AOD meeting as well. [There were 11 visitors to the clinic who actually did foils.]

Meeting adjourned at 350PM

Implant crown cementation-
What we know and the Wisdom in our choices

A Presentation to the Board of Trustees
By Dr. Chandur P.K. Wadhwani
Department of Restorative Dentistry
University of Washington School of Dentistry May 7, 2009 cpkw@u.washington.edu

Current concepts

Cementation has overtaken screw retention as the most popular means of retaining the crown to the implant because of multiple factors. Esthetics, control of occlusion, less demanding implant placement, cost (component and laboratory), more passive fit for multiple connected units, and because it is more similar to conventional tooth-born crown and bridge dentistry. Screw retention still has its proponents citing more predictable retrievability, more hygienic and better soft tissue health.

A question that must be considered is if cementing crowns onto implants can be done in the same manner as we do with traditional tooth supported dentistry. To answer this we need to compare and contrast cementation effects of both implant crowns and tooth- born crowns.

Similarities such as retention effects (related to: preparation taper, surface area, abutment height, surface texture and type of cement) are seen for both. Inadequate retention or inappropriate cement selection leads to cementing failure.

Anomalies are often seen around implant crowns. Sinus tracts, inflammation, and continued bone loss have all been documented as being related to cement residue remaining in the sulcus. Teeth with healthy tissues, on the other hand, suffer from few such effects. Some recent studies have stated that when comparing screw- retained implant restorations with cemented implant restorations, a measurable difference in tissue health (modified plaque index, bleeding index) was noted, with the cement retained worsening over time.

When we look at the anatomical differences between teeth and implants we note they are very different indeed. For the tooth, the soft tissue complex attaches to the hard tooth tissue via embedded Sharpies fibers that hold the healthy soft tissue tightly and robustly against the tooth surface. Implants have weak attachment with the soft tissues- hemi-desmosomal in nature. The collagen fibers tend to run circumferentially around the implant and the whole complex is considered delicate.

Also, when considering the difference in restorative margin position on a tooth and implant- we note that rarely is the tooth finish line deeper than 1mm to the free gingival margin at any site. The implant platform is usually placed 3mm below the facial free gingival margin. The soft tissue undulates whereas the implant head does not, so often the platform is some 5-6 mm deep in the interproximal or dental papilla areas, particularly when an implant is sited next to a natural tooth. This suggests a deep sulcus in the implant case, even in extreme healthy sites.

Having outlined the differences in soft tissue between implants and natural teeth- it would seem that we SHOULD consider them very different entities- one somewhat protected, the other vulnerable to the effects of excess cement. Recent case reports have shown that the excess cement of an implant crown can cause extreme soft tissue damage and in some cases has lead to implant failure.

A question that now needs to be addressed if our goal is to maintain health of the implant soft tissues:- Can we control or limit detrimental cement flow around the implant crown ?

One means of doing this is by providing adequate space for the cement lute. This is controlled by the laboratory technician, depending on the space provided during prosthetic fabrication. Unlike teeth a different set of biological principles exists with implants. We do not have to consider caries an issue so marginal integrity or closeness of fit may not be as important. To evaluate this, a series of metal crowns were made:

1. Waxed directly to the abutment (application of separator only), then cast

2. Die spacer (2-4 layers) then waxed, cast

3. Impressions of abutment in vinyl polysiloxane (VPS), die stone (with known expansion) model, waxed,cast

The castings once set back on the original abutment were measured (height dimension). Cement was placed inside the cast crown and then seated on the appropriate abutment and height again measured. A difference was noted between crowns that had lute space provided compared to the crowns made directly to the abutment (lubricant only). The directly waxed crowns did not seat completely – the cement lute prevented this.

Cement flow has not been very well studied. It is assumed that because with traditional tooth borne crown and bridge dentistry so few problems have arisen, that it has been looked over. In a literature review only a small number of articles describe differences in where we should place the cement lute:

- On the intaglio surface of the crown- fill crown and seat

- On the finish line of the restoration, 1-2mm then seat

- On the preparation finish line, seat the crown

- On the preparation axial walls near the occlusal surface.

To evaluate this a simple model was devised. Clear plastic drinking cups (approx. taper 8 degrees, that fit one inside the other) with shaving cream as cement substitute. This clear model shows how cement flows with differing cement placement sites. It appeared that loading the 1-2mm near the finish line of the crown gave best overall results- seating complete and minimal cement extrusion.

Venting was also looked at- this is known to improve seating of restorations, allowing excess cement an escape path. Both external and internal venting of the abutment wax considered- both worked well. The advantage of the internal venting was it left the crown intact and experiments are now under way at the University of Washington to confirm this with actual implant abutments and crowns.

Understanding that excess cement will extrude out of the marginal gap during seating, the next question to be addressed was can it be readily cleaned. An experiment with several cements, ranging from Tempbond to a resin cement was done. Implant abutments were loaded with differen t cements, which were allowed to set for 24 hours. They were then cleaned- with plastic instruments- because implant (titanium) surfaces are very soft and easily scratched and damaged. The results indicated that some cements could not be removed completely.

We know cement will extrude. We also demonstrated it is very difficult to remove entirely. The next question- If it does remain, ..can we see it ?- Radiographical evaluation would seem reasonable.

Experiment : 1.0 mm brass washers were filled with a variety of cements and compared to an empty washer on the same radiographic film. Most cements are completely invisible- even at 1mm cement thickness. Zinc phosphate and IRM showed up the most, but still would be unlikely to be seen in a real life situation. We are recommending that implant cements should be easily detected and currently we are writing a paper to be published to highlight this oversight.

Recommendations from our studies in summary:

- Direct the laboratory to provide space for cement in the restoration
- Load the restoration 1-2mm from the finish line- limiting amount of cement in the crown
- Consider venting the crown where appropriate- (internal venting the abutment is being evaluated at present).
- Limit the depth of the implant at the time of surgery- the deeper the implant is placed the more of an issue cement removal will be.
- Use a cement that is easily cleaned away- residue remaining can be detrimental
- Make radiographs prior and post implant cementation, look for excess cement
- Use a radio-opaque cement

The last part of the lecture dealt with how prosthetic know- how could circumvent any of the implant cementation issues highlighted.

They include- Always manage the abutment/ crown finish line by making it supra-gingival if possible. This usually involves using a custom abutment – which though more expensive, should always be used. Posterior teeth can be managed with gold abutments as esthetics is usually not an issue. For high esthetic areas a custom gold / pressed-ceramic abutment technique has been developed . Using custom waxing and pressing ceramic, a margin indistinguishable from the crown can easily be made. This has the advantage over Zirconia as it is exactly the same color as the crown, it can be etched with Hydrofluoric acid and bonded if desired. Zirconia is not considered a desirable abutment material – its color, lack of adhesion, questionable long-term viability; and, if internal venting is shown to work , would still be inferior to metal.

Finally, an in-print (Journal of Prothodontics July/ Aug 09) technique was demonstrated. Using Teflon tape, and fast- setting bite registration material, a copy abutment, smaller in size (by approx 50 microns- which is a reasonable cement space) is made at the chairside. The crown is loaded, and before working time elapsed, seated onto the copy, smaller abutment. Excess cement is removed, and the inside of the crown is now coated with a 50 micron layer of cement. The crown can then be directly seated on the abutment in the mouth having controlled the amount of cement.

No implant cementation protocols exist to date. Directions about the amount of cement, type of cement, and procedures we should be following need to be set out.

Dr Wadhwani is publishing a series on cementation procedures for implant crowns- he is working with the University of Washington to develop a universal protocol.

Submitted by Dr. Allan Osborn
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V8T2C1

A TRIBUTE TO JOSE MEDINA

American Academy of Gold Foil Operators
Annual Meeting October 28 – 31, 2009

Headquarters Hotel
Hilton Univ. of Florida
Gainesville, FL

Host Clinic
University of Florida
College of Dentistry

It has been a few years since our last meeting in Florida, so we are eager to revisit the area. The meeting will be dedicated to our late friend Jose Medina, who spent his last years in Gainesville, and was instrumental in developing the curriculum for Operative Dentistry at the school.

The Hilton UF Hotel and Conference Center is a nicely renovated site and will be very convenient to the University, shopping, etc. An airport shuttle will be available for those flying into Gainesville. It may be more convenient to fly into Orlando or Jacksonville, and renting a car.

We will be doing our clinical session at the UF College of Dentistry, with the operators coordinated by Joe Newell. Clinicians will provide an assortment of operations, and hopefully, students will be involved as well. In addition, there will be a Masters' Class on Thursday evening. Dan Henry will be the main presenter for that. Thanks, Dan.

Henry St. Germain has lined up some excellent essayists with a wide variety of topics covering direct gold as well as updates in research and other options.

As in previous years, there will be adequate time devoted to social aspects of the meeting, as well as just relaxation time. In addition to an afternoon tour, we are planning a dine-around in town and a show – "Mindgame", a thriller for Halloween. I have also booked a few tee times at the Gator Golf Course.

Reservations are on a "Call-in" basis. Just call 1-352-371-3600 and ask for the "AAGFO Room Block". Rates are $129 for single or double. Remember to book through Saturday night.

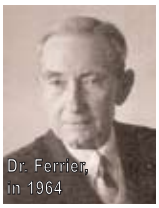
Dental Education

The Vancouver Ferrier Gold Foil Study Club

■ Three long-serving mentors in club's 72-year history a testament to vitality of dental education, says **Dr. John Nasedkin**

An elegant bronze bust at the University of Washington Dental School in Seattle of Dr. Walden I. Ferrier reads "Dentist, teacher, leader. His leadership in restorative dentistry, his refinement of gold foil technique and his guidance in study club activity are evident in the highest standards of dentistry which have resulted from his teaching and inspiration."

Dr. Ferrier became the leading advocate of gold foil with his small but definitive book entitled Gold Foil Operations,[1] which along with his teaching expanded the concepts of gold foil so beautifully illustrated in my article on the Walter K. Sproule study club published in the Nov. 30, 2008 issue of Dental Chronicle. He is also the namesake of the Vancouver Ferrier Gold Foil Study Club which dates from the fall of 1936.


Dr. Ferrier, in 1964

In all of the 72 years since 1936, there have only been three mentors Dr. George Ellsperman (1936 to 1967), Dr. Gerry Stibbs (1967 to 1993), and Dr. Dick Tucker, Sr. (current). Involvement with other Foil groups in the Associated Ferrier Study Clubs continues with an annual meeting in the Pacific Northwest. Through their many connections, the group has enjoyed guest presentations from leading clinicians such as Hollenback, Shooshan, Jefferey, Spratley (of dental hand instrument and fishing fly fame), and Ron Jordan, over the years.

Such is the tradition of clinical excellence that the contributions extend beyond gold foil. Dr. Stibbs was recruited as the first head of Restorative Dentistry at the University of Washington. During the Second World War, several members served in the Canadian Dental Corps and numerous others have gone on to executive positions in organized dentistry. Entrance to the group was gained by invitation and by completion of a two-week foil course.

The recorded history[2] indicates that Doug Sutherland was an influential member of the committee that led to the establishment of the dental faculty of UBC and he was the driving force and impetus for the continuing dental education clinic at UBC which now bears his name.

The current group is pictured below with their mentor, Dr. Tucker. Two members are missing from the photo. This cross-border group has members in Bellingham, Wash. and throughout British Columbia. Both Mike Oswald and Debbie Zokol are children of former members. The club meets for nine sessions each year in the Dr. Gerald Stibbs Dental Clinic of the Study Club Alliance of BC, now newly refurbished into a deluxe teaching facility. Each member operates on a patient for most of those sessions.

Dr. Margaret Webb. a Vancouver member, was presented with the Outstanding Clinician 2008 award of the American Academy of Gold Foil Operators at the Nov. annual meeting held at the Mercer Center in Scottsdale, Ariz. Margaret is also active in the promotion of cast gold restorations, teaching a week long RV Tucker course on conservative cast gold restorations through UBC Continuing Education and co-organizing a week long RV Tucker course for 3rd year students at UBC.


Dr. Margaret Webb of Vancouver (left) received the award for Outstanding Clinician in 2008 from American Academy of Gold Foil Operators. She's discussing her foil preparation with Dr. Dick Tucker at the Study Club clinic.


The members of the Vancouver Ferrier Gold Foil Study Club at the 576th meeting. From left to right: Natasha Tam, Margaret Webb, Mike Oswald, Dick Tucker (mentor), Ron Dahl, Dave Stanger, and Avie Perel-Panar. Top row, Jason Duan, Chuck Farrell, and Debbie Zokol.

Jason Duan is a UBC 2005 graduate who says that gold foil was not even mentioned during his undergraduate years in dental school. Natasha Tam, an '07 graduate, indicates that the attraction of gold foil and the study club is the attention to detail which is engendered in the teaching and execution of the restoration.

For insights into clinical procedures go to www.aagfo.org and visit the entire website. The *Journal of the American Academy of Gold Foil Operators* celebrated 50 years of publication in 2008 as the official publication. The next meeting of the Associated Ferrier Study Clubs is May 7 and 8, 2009 at the University of Washington.

Over more than 70 years and nearly 600 meetings the comradeship and shared learning continue to enhance each member's every day experience of clinical dentistry. In Feb. 1981,[3] Dr. Stibbs reported that 2,835 gold foils had been placed in the Vancouver study club's then 45 years of existence. He also commented that "gold foil continues to the one of the finest available means of restoring carious teeth , and the gauge by which other materials are compared. He continued " It has been one of the finest instruments for teaching students—undergraduate and graduate—an appreciation for excellence in dental restorative service through basic instruction and through study clubs". The descriptors above are no less apt for dentistry today as these clinical study clubs continue to lead the way in excellence in clinical dentistry.

—**Dr. John Nasedkin**

References

1. Ferrier WI: Gold Foil Operations, U of Washington Press, 1959.

2. McAlpine RB: The Vancouver Ferrier Study Club: History and Anecdotes. 1991.

3. Stibbs GD: Gold foil: what does it mean after half a century in dentistry. *Operative Dentistry* 1982 (Spring); 7:78

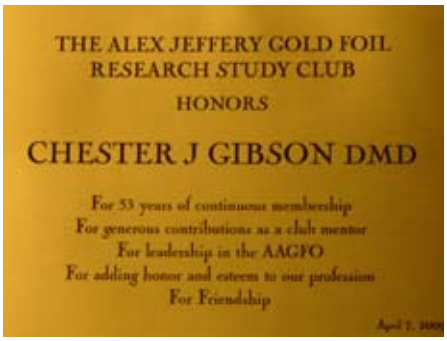
On April 7, the Alex Jeffery Gold Foil Research Study Club hosted long-time member and retiring mentor, Dr. Chester Gibson, at a dinner recognizing his many contributions to the promotion of direct gold restorations. Twenty-two members, former members and staff met at Nicks Italian Café in McMinnville, Oregon, for the event.

Dr. Alex Jeffery was a student of Dr. W. I. Ferrier but started his own club in 1956 to advance his own ideas of prep design and filling techniques. Dr. Gibson joined as a charter member and became a master of the Jeffery technique and eventually was selected club mentor.

Over the years, Dr. Gibson has been a leader both locally and nationally in the promotion of direct gold dentistry and he took particular joy in teaching foil technique to anyone who wanted to study it. He was always very generous with his advice, time, equipment, instruments – anything one needed to learn about foil. His retirement is richly deserved but his leadership will be missed.

Dr. Wendell Foltz

Chet Gibson and entourage



Dr Gibson's Retirement Award

Alex Jeffery Study Club president Barry Evans and senior member David Moline present Dr Gibson with an appreciation award for his long service.

FOR SALE

I left practice 21 years ago (went to law school) and have stored my little used McShirley along with about $100 worth of foil and Williams bulk gold pieces + a kit of 6 anterior and class 4 files.

I would really like to sell all together to someone who wants to get into Gold Foils or whose McShirley is on its last legs and wants to replace same

I would love it to go to someone who appreciates foils. I went to St. Louis University Dental and they emphasized the technique so I came to enjoy placing the restorations.

Ronald P. Hamberg D.D.S.,J.D.

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