A Clear and Sensible Relationship

Dr. Peter C. Furnari, the president of the Greater New York Academy of Prosthodontics, put forward some very worthwhile themes in two addresses during his inaugural at the GNYAP meeting in December this past year. Dr. Furnari is well known in the greater New York area as a faculty member in New York University's College of Dentistry and as a private practice clinician. Since his graduation from dental school and his initial dental experience in the Army Dental Corps he has taught the disciplines of prosthodontics for some 37 years, and additionally he now serves as an associate faculty member at the Pankey Institute in Miami, Florida. His broad experience in dental education gives him a unique vantage point from which to assess dental education, the discipline of prosthodontics and the effect the discipline has had on the specialty of prosthodontics.

In these addresses it became clear that Dr. Furnari's primary goal is to activate interests in prosthodontics at the undergraduate level. He believes one way to highlight prosthodontics in dental schools is to encourage those with interests or training in prosthodontics to teach. He recommended that those not teaching should teach; and although he didn't say it, probably he means giving some part of time to teaching. He hopes that increasing numbers of teachers with interests in prosthodontics will better continue NYU's current "in-school" mentoring program in prosthodontics. As a way to further meet this goal he wants the nine dental schools closest to the New York City area to provide the financial support necessary to bring certain numbers of dental students to organization meetings, including those of the GNYAP. He wants the efforts of those nine schools to serve as a model for other schools, a model that would support students from other schools going to other meetings. He further envisions expansions of the financial support in order to give students opportunities to go into private offices to observe and perhaps assist in prosthodontic treatments; all of which would enhance the student, teacher and mentor relationship.

Dr. Furnari stated that if these goals could be met, gifted undergraduates in our schools would "learn about the discipline and specialty of prosthodontics, choose to study prosthodontics and ultimately pursue the educational opportunities available that lead to becoming a boarded prosthodontist."

Dr. Furnari recognized the Greater New York Academy of Prosthodontics' gift of $100,000 to the American College of Prosthodontists, money given for the purpose of promoting prosthodontic education. He noted that this gift was one of the first large organizational gifts, and that it stimulated other sizable donations. Taking these gifts into consideration, he challenged the ACP to "vigorously dedicate their efforts and resources to stimulate undergraduate interest first in the discipline of prosthodontics, and ultimately in graduate prosthodontic education."

In retrospect, he cited the Academy's primary commitment to education, noting that some of the finest and most dedicated teachers in prosthodontics have been its members. Further, Academy support for research in prosthodontics was verified by the six grants given annually to graduate students in prosthodontics. The organization's present in-school mentoring program and future in-office mentoring efforts were mentioned as was the forthcoming Academy–NYU cosponsored Honors Program. This

program will provide 70 course hours of expanded clinical training in prosthodontics to six fourth year dental students at NYU. [Although this program is structured somewhat differently, an honors program, directed by Dr. Jonathan Ferencz, has been in place for some years at NYU, and it has been highly effective as a feeder program for outstanding students coming into NYU's Advanced Education Program in Prosthodontics - ed.]

Dr. Furnari said that teaching and mentoring will become more important in the future. There is a need for educators who can closely mentor because:

- Dental education and the specialty of prosthodontics are moving toward problem based learning.

- A rapid increase in numbers of clinical procedures has stretched education resources beyond their limits.

- The curriculum in prosthodontics must be relevant to the society absorbing its graduates. Those practitioners who have a good fit in the public sector must become educators who are active in determining dental practice modalities.

- They can help dental schools prove their [worth] to their parent institutions–a critical need.,

In all of Dr. Furnari's observations he clearly recognized that the genesis of the specialty of prosthodontics lies in the dental school and with the disciplines of prosthodontics therein. One thing leads to another, and educators and mentors from successful practices who emphasize the disciplines of prosthodontics with dental students become valuable resources in increasing interest in the specialty and in recognizing those students ready for specialty training programs. Dr. Furnari is unique as one who has put a different light on the interdependence between the discipline and the specialty of prosthodontics.

By asking the fellows and guests of his academy to expand their leadership by "cultivating and promoting the specialty of prosthodontics" Dr. Furnari has healed many wounds and strengthened our specialty immeasurably.—— Thank you Pete!

TEN WAYS TO AVOID MALPRACTICE

10. Listen to your patient.
Never assume you know what your patient wants or needs.
"A good listener is not only popular everywhere, but after awhile they know something." W. Misner

9. Give post operative instructions verbally and in writing.
"I know you believe you understand what you think I said, but I'm not sure you realize that what you heard is not what I meant." Unknown

8. Be sure your patient's expectations are realistic.
"Half the promises people say were never kept, were never made." E. W. Howe

7. Be thorough as you examine and diagnose.
Never compromise standard of care in the interest of economics.
"Patients cannot waive the standard of care."

6. Know your limitations.
Never treat outside your comfort zone.
"I think I can" is best left to little red engines.

5. Inform your patient when the events or outcomes are adverse.
Never attempt to hide what happened.
"What a tangled web we weave when first we practice to deceive." Shakespeare

4. Have a written record of what you said and did.
Never assume you can remember what you did and never alter a patient record.
"if it isn't written down, it didn't happen." Pick a lawyer - any lawyer.

3. Discuss fees and make financial arrangements in advance.
Never sue a patient without first considering the repercussions.
"Before embarking on a journey, you must first count the cost."

2. Discuss alternatives, risks, and complications.
Never proceed without a patient's informed consent.
"In advance it's an explanation; afterward it's and excuse."

1. Develop and maintain a relationship with your patient based on mutual trust and respect.
"Never treat a stranger" L. D. Pankey
Friends do not sue friends.

Lest They Be Forgotten

The late **Heinz O. Beck** in a lecture at the Walter Reed Army Medical Center on December 9, 1966 said that "the articulator that is used by the individual is dictated by the occlusal philosophy used [i.e. the occlusion to be developed].

Jim Brudvik in a seminar at Walter Reed Army Medical Center on January 20, 1967 discussed the Transograph Articulator. He noted that **Harry Page** of Valparazo, Indiana who developed the instrument was not a dentist. Page believed that the condyles could not have horizontal, vertical and sagittal axes intersecting at one point within the condyle, even though they [the axes] pass through the condyle. Why? Because, he said, the condyle is an asymmetrical body. Army dentist Brudvik further explained the technique by saying that Page related the mandibular cast using interocclusal records, and if on the "terminal hinge axis" and on the "path of closure" 3 records of different degrees of thickness would prove the mounting.

R. H. Kingery thought the milling device on the **Stansbery** articulator, known commonly as the Tripod, was the best of the milling devices. This miller:

- was on the lower member of the articulator.
- milled in a backward and forward movement in the distal with a .04 inch range (.02 inches retrusively and .02 inches protrusively.
- milled in a circular movement anteriorly with the centric position in the center of the circular milled area, which had a diameter of .04 inches (a .02 inch radius in all directions.

[Note: is any reader presently using a mechanical miller, or know someone who does? If so, please respond.]

Larry Weinburg was a genius of thought as he described articulators in his four articles in J. Prosth. Dent. 13.

Barney Jankelson described "the occlusion" as contact points [between the maxillary and mandibular teeth] that anchor the mandible during deglutition. He wanted a free and unimpeded entry of occlusal contacts which at the end point would coincide with a "solid" centric relation of the joints. [See: Arne Lauritzen below]

Irving Glickman wrote: "the first requirement for proper location of the gingiva margin of the preparation is a healthy gingival sulcus."

Lindhe researched further on Glickman's requirement and found sterile samples in 24 of 25 assays from the apical third of the gingival crevices of erupting human incisors. He extrapolated further by saying it would be reasonable to expect that substantial numbers of bacteria would not normally be present in a healthy gingival crevice around fully erupted teeth. (Lindhe and Masson, J. Periodontal Research 1:14, 1966)

Muller Devan named his philosophy of occlusion in dentures "neutrocentric." In using and defining it he attempted to neutralize inclines, centralize tooth positions, decrease the areas of the occluding surfaces and decrease the "pitch" and numbers of the dental units. [Was he pioneering the occlusions needed on implant prostheses, or what?]

Devan, Victor Steffel (the "equipoise clasp") and **Stone** (the "tripping action" described in the JADA 23, 1936) all advocated an infrabulge clasp in removable partial dentures. **Kratochvil** and **Krol** further defined its use naming it the I-bar retentive arm. Of no less importance and of equal interest was **Jim Kratochvil**'s continuous strap occlusal rest. He also remarked that any metal crossing the palate should be so thin that "you can read the newspaper through it."

The **Krol / Kratochvil** theories on removable partial denture guide planes are dissimilar. Two important features of the Kratochvil technique are:

1) All tooth structure on the distal surface of the tooth should be contacted with a thin metal plate (the guide plane / or plate) that extends 1 to 2 mm. onto the soft tissue, the extended 1 to 2 mm. being polished.

2) The metal-tooth contact must be "physiologically relieved" (moving the framework up and down with a marking indicator on the metal plate that will show areas of impingement with the tooth).

Bob Lytle proved tissue displacement from ill fitting dentures. He further advocated tissue recovery before construction of new prostheses by placing "conditioning materials" in the old prosthesis and insuring removal of the prosthesis for prescribed periods of time. **O. C. Applegate** treated disuse atrophy in edentulous areas with an "exercise prosthesis" coupled with massage of the edentulous tissues with finger pressure.

O. C. Applegate impressed the edentulous areas to be covered by removable partial dentures by molding Kerrs Korecta Wax (No. 1 Hard) held by the framework. He followed this with a 24 hour occlusal chew-in (sleeping, but not eating) using Pecks Purple wax. After the base was processed and delivered, he carried out an occlusal adjustment at the 24 hour period and later if "slight prematurities still remained."

Hank Muller saw in the Applegate technique a theory which he named "consistency of consistency." His explanation was that if a hard wax is used for the impression, a hard wax should be used for the chew-in; but if a soft wax is used for the impression, a soft wax can be used for the chew-in.

In January 1973 **Russ Stratton** wrote a long monograph on precision attachments. He listed advantages, indications, various types and classifications. He overlooked a primary advantage of the precision attachment technique, and that is the fabricating laboratory has little choice in making changes or alterations they might determine to be "improvements in design." Usually in the precision attachment technique the laboratory attempts to follow the design prescription as closely as possible. The laboratory is "locked in" by the design features in the abutment's crowns.

Perry Alexander, a superb Navy periodontist tried to disprove **Angelo DiAmico's** cuspid guided theory. Can you imagine two Italians being on opposite sides of this controversy? **Larry Weinburg** did observe 100 dentulous subjects, and found 81 with group working side contacts and 19 with "canine protected" occlusion. He noted that 3 with a TMJ dysfunction were found in the cuspid protected group, and only 1 in the group-function population. [J. Prosth. Dent. 14]

Arne Lauritzen put as much value on a non interfering occlusion as anyone who ever lived. His:

- hinge bow mounting and third point location to mount the maxillary cast,
- precision verified centric relation records used to mount the mandibular cast, followed by
- a written record of interferences as found and removed on the mounted casts
- creating a "road map of interferences" used to adjust the occlusion intraorally

has become a classic technique. **Arne's** disciples, **Douglas Wendt** (prosthodontist) and **Albert Paulson** (periodontist), known as the "Vikings", have followed this technique for years and have proven many times over that the technique remains as one (maybe the one) verifiable way to establish a powerful, comfortable, functional and physiologic occlusion.

Can the tongue position be classified as "normal" or "retracted"? Are there evidence based studies that have determined where the tongue is in relation to the buccinator muscle and the teeth, how it affects food placement, denture borders, or the height of the occlusal plane. **Corwin Wright's** life-long study of the tongue determined that the tongue functions by touch and pressure, not memory. He found that position differences of less than 1 mm. could be detected on the tongue. He said the tongue does not function well if an occlusal plane is established above the resting height of the tongue. He observed that all gaggers have a retracted tongue position. Finally, he noted that the tongue controls food placement in the mouth, not the arm or eating utensil position.

J. S. Landa used cineflurography to study the actual oropharyngeal function. He observed that the soft palate contacts the posterior wall of the pharynx higher than Passavant's Pad; that the suprahyoid muscles raise the larynx and places its opening under shelter of the root of the tongue, thusly discounting the epiglottis being a sloping lid over which the food glides. He strongly recommended a team treatment approach of the cleft palate patient.

John Flocken (UCLA) abided by: "Only those who have the patience to do simple things perfectly ever develop the skill to do difficult things easily."

And finally, if **God** took time to create these pioneers in prosthodontics, how can we be too busy to appreciate them?