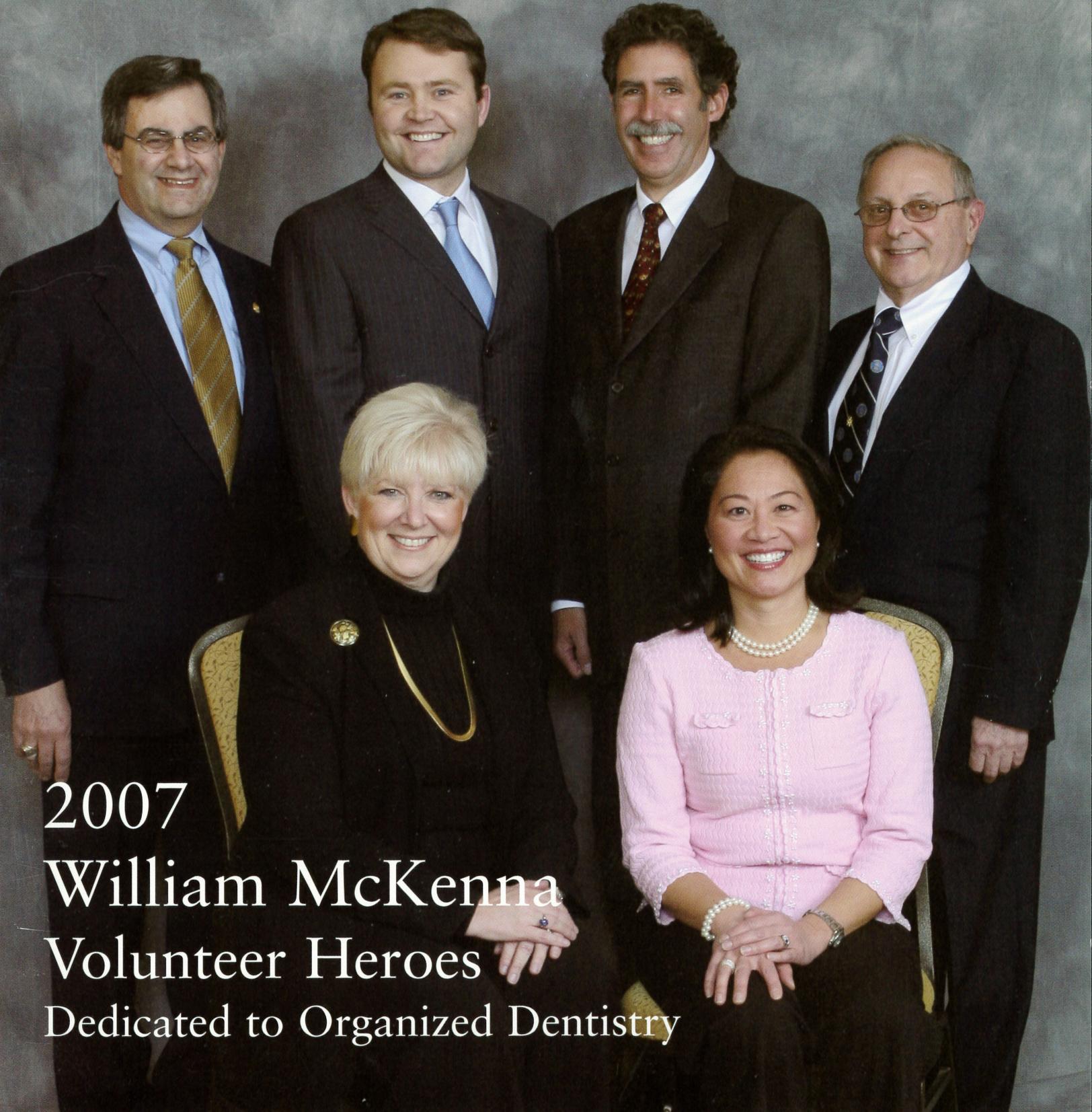


# JOURNAL *of the*

MASSACHUSETTS DENTAL SOCIETY

Winter 2008



2007

William McKenna

Volunteer Heroes

Dedicated to Organized Dentistry

# CORRECTING, NOT CRITIQUING, THE ACCESS-TO-CARE ISSUE

**A**S DENTISTS, WE WORK IN OUR OWN CONTROLLED ENVIRONMENT, insulated from public opinion, and often do not have a clue as to what the real world is thinking about the services we provide. We develop our own relationships with our patients and, even in our isolation, believe that our patients know how beneficial our treatment is and that they respect us and what we do. Every practice has its own “personality” and attracts patients who fit that personality. If we are lucky, we are content with the knowledge that those we treat are comfortable and satisfied with us and our care.

In reality, we often do not know what the general public really thinks. A case in point is an article published in the *New York Times* on October 11, 2007, which does not paint a very pretty picture of dentists or our profession. The article begins:

“For American dentists, times have never been better. The same cannot be said for Americans’ teeth.

With dentists’ fees rising far faster than inflation and more than 100 million people lacking dental insurance, the percentage of Americans with untreated cavities began rising this decade, reversing a half-century trend of improvement in dental health.

Previously unreleased figures from the Centers for Disease Control and Prevention show that in 2003 and 2004, the most recent years with data available, 27 percent of children and 29 percent of adults had cavities going untreated. The level of untreated decay was the highest since the late 1980s and significantly higher than that found in a survey from 1999 to 2002.

Despite the rise in dental problems, state boards of dentists and the American Dental Association, the main lobbying group for dentists, have fought efforts to use dental hygienists and other non-dentists to provide basic care to people who do not have access to dentists.”

The article also states:

“But many poor and lower-middle-class families do not receive adequate care, in part because most dentists want customers who can pay cash or have private insurance, and they do not accept Medicaid patients. As a result, publicly supported dental clinics have months-long waiting lists even for people who need major surgery for decayed teeth.”

Here is our problem: We know how much our profession is doing to improve access to care, but obviously we are not getting the message out to the public, thus allowing an article like this to have a much larger impact than it should. What the *New York Times* did not take into account is that:

- The Massachusetts Dental Society (MDS) operates a Mobile Access to Care (MAC) Van, which goes to areas with documented unmet pediatric dental needs. The children are triaged and treated, but most importantly, they are put in a system that provides follow-up care for the children and health education for the parents or guardians. Dentists in each dental district provide free care and are setting up systems to teach parents how to enroll in the MassHealth (Medicaid) dental program. There is also an ongoing process to get more dentists to enroll as MassHealth providers.
- The MDS and the American Dental Association (ADA), through our governmental affairs programs, have prioritized our focus to improve access to care. At the ADA’s Washington Leadership Conference and the recent House of Delegates Session in San Francisco, a substantial portion of the proceedings was dedicated to strategizing about efforts for getting dental care to those who are most in need. Dentists from all over the country and from all political persuasions were unified in trying to get Congress and the Bush administration to listen and to increase the needed budget allocations.
- The MDS and ADA are working with the Massachusetts congressional delegation on the access-to-care issue. Their efforts include reauthorizing the State Children’s Health Insurance Program (SCHIP) legislation.

Additionally, the *New York Times* article states that dentistry is holding back the ability of hygienists to provide care to those in need. In reality, the MDS has backed pending legislation that allows auxiliaries to provide care, in dentist-supervised settings. A very small but organized group of hygienists has been actively seeking the right to provide unsupervised dental procedures to those in need. They are planning to set up private clinics. This would result in a two-tiered system of care, which would not provide those in need with equal quality of services.

Hygienists can be licensed after only two years of education following high school. Considering the severity and complexity of emergency situations that dental offices and clinics routinely deal with, we are quite concerned about the level of diagnosis and subsequent quality of care that would be provided to underserved patients by less-qualified practitioners in these unsupervised situations. Everyone deserves equal care in a safe setting.

Part of the problem with access to care is that we are not educating enough dentists. The *New York Times* article misrepresents a position that the opening of new schools is not desirable. It states: “. . . the ADA does not support opening new dental schools or otherwise increasing the number of dentists.” Actually, the opposite is true. Organized dentistry feels that the opening of new schools would go a long way in helping to solve the provider shortage problem. The ADA is spearheading an educational foundation (led by Dr. Arthur Dugoni, ADA past president and dean of the University of the Pacific) that is attempting to raise \$1 billion *specifically* for dental education.

Dental school education is the most expensive of the learned professions. Government subsidies have diminished to the point that many dental schools have been forced to close. It is common for recent graduates to start their professional lives with educational debt as high as \$250,000. Efforts to get the federal government involved have fallen on deaf ears. For example, loan forgiveness programs in exchange for working in the National Health Services or the Indian Health Services have faced major roadblocks and lack of funding over the past few years. A second example is the funding for general practice residencies. Every year, the Bush administration cuts out this funding and we have to fight to get it reinstated. The sad fact is that this year it was only in the \$30 million range—a drop in the bucket. What makes this fact more appalling is that these clinics or hospital-based residencies are often the only access to care for the underserved or elderly in a given area.

We know that we are preaching to the choir, but it is extremely frustrating to read an article with the bias this promotes. There is no denial that our profession provides us with satisfaction and rewarding experiences. We know that most of our colleagues care about giving back to society and helping others. Individually and collectively, we have acted directly and through our elected officials to provide superior dental care to all socioeconomic groups. The *New York Times* would better serve its readers and our society by joining the effort to improve access to quality dental care rather than attacking the people who are working to do just that. ■

*David B. Becker*

*Arthur I. Schwartz*

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## IS RETIREMENT CLOSE? HERE ARE SOME THINGS TO CONSIDER

**I**F YOU'RE A MEMBER OF AMERICA'S LARGEST GENERATION, the baby boomers, you'll be entering retirement in the coming years. With this in mind, now may be a good time to preview some of the retirement planning choices you're bound to encounter in the years ahead.

### **Pension Payout Options**

If you have a company pension plan, you will need to make some decisions about how you wish to receive your pension proceeds when you retire. Generally, you'll be given the choice of receiving income for the rest of your life (single life option), receiving an income for the life of you and your spouse (joint and survivorship option), or receiving a lump-sum distribution.

Each option presents its own potential advantages and disadvantages. For instance, a single life option will pay a higher income than a joint and survivorship option. However, if you take the single payout option, income will cease upon your death, whereas if you take the joint and survivorship option, payments continue for the life of both you and your spouse. With both payout options, you give up your pension balance in exchange for income.

If you would prefer to have full control over your pension assets during retirement, or are concerned that your pension income will not keep pace with the cost of living or your intended lifestyle, you might consider taking a lump-sum distribution. You can receive the pension proceeds net of income taxes, or roll them over into an Individual Retirement Account (IRA), where retirement assets will continue to benefit from tax-deferral (mandatory minimum withdrawals must commence at age 70½). Either choice allows you to actively manage your own retirement assets.

### **Qualified Plan Proceeds**

If you're a participant in an employer-sponsored retirement plan—for example, a 401(k)—you'll also have the option of

either receiving a lump-sum withdrawal net of income taxes or rolling over the proceeds into an IRA. Once you retire, you'll be required to actively manage your retirement assets. Therefore, it will be crucial to make prudent savings decisions that are consistent with your goals and objectives.



### **Shortfall Planning**

As you approach retirement, you should continually reevaluate your retirement planning to help ensure that you will meet your funding goals.

For most individuals, retirement plan assets and Social Security alone will not cover retirement income needs. Therefore, personal savings become equally important to your long-term success. Before you begin your personal retirement savings program, be sure you are fully maximizing contributions to your tax-advantaged, employer-sponsored plan.

There are a number of savings vehicles available to help you close the gap on a retirement funding shortfall. But without a disciplined approach to saving, it will be difficult to achieve the goals you have set for yourself.

### **Before You Pass Go . . .**

As you can see, there is a vast array of decisions you'll have to make as you approach the homestretch to retirement. If you were forced to retire today, would your resources be adequate to provide a comfortable retirement? Are you prepared for the possibility of needing hospitalization resulting in long-term care? What if you suffered an untimely death? Would your current retirement assets be enough to support your spouse or family?

For these and many other reasons, it's important to develop a well-rounded plan designed to meet your particular goals. It's never too early to start. ■



**GEORGE GONSER, MBA**

*Mr. Gonser is the managing director of MDSIS.*

## BRACING FOR THE “BOOM”

**D**O YOU REMEMBER THE SONG “WHEN I’M SIXTY-FOUR”? IT was a hit song for the Beatles in 1967. Paul McCartney and John Lennon wrote, “Will you still need me, will you still feed me, when I’m sixty-four?” I was thinking about that song at a recent symposium of business professionals when the speaker started talking about “baby boomers” and how we have begun to see the first wave of baby boomers approach the start of their silver years—age 65.

The term “baby boomer generation” refers to the higher-than-expected spike in the number of births in the United States between the years 1945 and 1962. This group of individuals is often described as being highly educated, creative, and financially influential—and is living longer. Its members are also very interested in enjoying their future in terms of experiencing life, traveling, and pursuing recreational activities.

So, as the baby boomers close in on age 65, what will the effect be on the workforce? There are two theories regarding how things will play out over the next five to 10 years:

- The first theory likens it to “demographic doomsday” because the baby boomers would exit the workforce and there would be a shortage of not only employees, but also well-trained, seasoned staff. Companies in all industries would feel the pinch in multiple ways, including the hiring and recruiting of staff. As shortages occur, demand for employees will increase, and the cost of these employees will also increase in both retention and recruitment. The cost to replace these employees will be higher than the cost to retrain or retool existing employees. It will be crucial to keep the best employees.
- The second theory is that there will not be a real hard effect on the marketplace. Baby boomers will continue to work past the age of 65, which will minimize the disruptions to the workforce. In the dental profession, it is not uncommon to see dentists work far past the age of 65. That doesn’t mean that they are working their full schedule, but they are continuing to work in some capacity. There are some chal-

lenges in having 65-and-older employees continue to work, but under this scenario, a large number of the population would not be exiting the workforce at the same time, and hence, the transition would be somewhat eased.



When McCartney and Lennon penned their song, the average life expectancy in the United States was about age 70. Now, as Paul McCartney enters his silver years (mid-60s), life expectancy is pushing age 80 and beyond. So what do you think is the track for our society: demographic doomsday or soft landing? While it is too difficult to predict now how things will shake out over the next decade, one thing is sure—insurance costs will go up.

The Health Care Reform Law was implemented in 2006 to help provide lower-cost, benefit-rich health insurance plans to the general public. One and a half years into the law, health insurance costs have neither decreased nor stabilized, but have instead increased to the tune of 15 percent or more. While most businesses have not pulled the health plans they offer to their staff, the discussion of just accepting the \$295 penalty per employee has been raised and will continue to be raised in the future. What if a company simply stops offering health insurance?

Under both scenarios listed above and for what we have seen to date in the marketplace, companies would be taking a severe risk if they pulled their health insurance plans. While we could discuss the merits of a single-pay system or removing companies altogether from the health insurance marketplace, the reality is that employees rely heavily on companies for their health insurance. To retain and attract employees, companies have to offer insurance or face losing current employees or losing out on hiring employees.

As the next 10 years shake out and the marketplace takes shape, we will see just how important benefits are. Tough decisions lie ahead for businesses and baby boomers alike. Make no mistake about it—the future will definitely be a “long and winding road.” ■

# Wine Tasting Event a Success on the Waterfront

The 4th Annual MDS Foundation Wine Tasting took place Friday, October 26, 2007, at the Lighthouse at the Seaport Hotel. Overlooking Boston Harbor, 100 MDS members and guests enjoyed the sweeping views while sampling wines from around the world. Everyone present had a great time bidding on auction items ranging from autographed sports memorabilia to hotel stays. More than \$14,000 was raised for the MDS Foundation, which is dedicated to improving access to dental care for the underserved population of Massachusetts and enhancing educational opportunities for those who wish to pursue a career in dentistry.

This popular event kicks off the MDS Foundation's Annual Giving Campaign, which raises unrestricted funds each year from May 1 to April 30. Donations to the Annual Fund may be made online at [www.mdsfoundation.org/giving](http://www.mdsfoundation.org/giving) or through your annual dues statement.

A special thank-you to our major event sponsors:

- ☞ MDS Insurance Services, Inc.
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*Save the Date!*

**7th Annual MDS Foundation Golf Tournament**

Monday, June 16, 2008

Ledgemont Country Club, Seekonk, MA

Register online at [www.mdsfoundation.org/events](http://www.mdsfoundation.org/events).



# 2007 William McKenna Volunteer Heroes Models of Volunteerism



Each year, the Massachusetts Dental Society and the JOURNAL OF THE MASSACHUSETTS DENTAL SOCIETY join forces to honor those member dentists who have dedicated their energy, skills, and time to the profession of organized dentistry—our “Volunteer Heroes.” This year, we continue to celebrate those members who have gone above and beyond to help the MDS achieve its goals, inspire colleagues, and advance the profession of dentistry. However, there is one change this year, as the MDS Board of Trustees voted last fall to rename the Volunteer Heroes’ recognition the “William McKenna Volunteer Heroes” recognition in honor of Dr. William McKenna, who passed away last year. Dr. McKenna was a driving force behind the development of the Yankee Dental Congress and a model of volunteerism within the MDS.

This annual recognition is the Society’s way of saying thank you to those deserving members who give so much of themselves to organized dentistry.

On the following pages, you will meet the 2007 William McKenna Volunteer Heroes and learn their thoughts on the impact volunteers have on the Society and the profession, what they have gained both professionally and personally from their volunteer experiences, and why they think getting involved is important to the future of dentistry.



## Louis R. Farrugia, DMD



**Residence:** Marshfield

**Office Location:** Tufts University School of Dental Medicine, Boston

**Specialty:** General Dentistry

**Education:** Tufts University School of Dental Medicine

**Number of Years in Practice:** 25 years in private practice, plus 17 years in dental education

**Number of Years of MDS Membership:** 41



### Why did you choose to join the MDS?

A mentor invited me to a South Shore District Dental Society meeting. I was warmly welcomed, and it gave me the feeling that I was not alone in the practice of dentistry. It also gave me a chance to meet dentists in the area of my practice. At that time, welfare and dental insurance were major issues facing organized dentistry; the issues still have not changed. I was thankful for the chance to hear both sides of the issues, which spiked my interest in joining the Massachusetts Dental Society.

### Why is involvement in organized dentistry important to you?

If you are not involved, you do not know what the Society has to offer. You may not know what the current issues being proposed in the legislature are, and which issues ultimately will affect the way you practice dentistry in the future. We have strength in numbers; without numbers, you will be one voice in the wilderness.

### Please describe the extent of your volunteer experience in dentistry.

Starting as a paid practitioner in the Head Start Program for the Worcester Public School system, I saw the need for the treatment of underprivileged children. My military experience during the Vietnam War opened my eyes to the dental needs of underprivileged recruits. During my practice years, I volunteered to give free, in-house dental treatment to residents at four nursing homes; this showed me the oral health needs of the elderly. I was a consultant for the Massachusetts Hospital School, which exposed me to the needs of the handicapped. I was a volunteer for the Sharewood Clinic, which left me with the understanding of the needs of the immigrant population. I have lost count of the number of Child Identification Programs (CHIP) I have volunteered for over the years. I volunteered for the MDS's old Council on Education and Practice for five years, and I am in my third year on the Council on Education. No one wanted to become editor for the South Shore District, so I volunteered. I have served on the MDS Peer Review Committee, Executive Committee, and Budget Committee, and all the committees of the South Shore District. I am also a past chair of the South Shore District. Last but not least, I have been a volunteer at the Yankee Dental Congress for many years.

### How has your volunteer experience impacted you professionally and personally?

I have grown as a dentist, but more importantly as a person. I have seen the ravaging affects of dental disease on children, the young, the disabled, the old, and the infirmed population. I have been able to see beyond the issues and have been able to look at the whole picture. In many cases, these volunteer experiences have forced me to make a career change by going into education. The combined total of my life experiences directed me to educate future dentists to the need of dentistry for the underprivileged and underserved, and to teach dentistry not only as a profession but also as a way of life.

### What do you feel are the most important issues facing organized dentistry today?

The manner in which state and federal legislature intervenes in the way we practice dentistry in the future is important, but what's more important is the way we educate the future generations of dentists.

### Where do you see the future of organized dentistry in five years? 10 years?

The future of organized dentistry can only grow, but it needs everyone to get involved. We, as an organization, will be only as strong as our membership.

### What would you say to a recent dental school graduate to convince him/her to get more involved in organized dentistry?

Get involved—you can make a difference. Your reward will be knowing that you have made a difference for the future practice of dentistry. Your reward also will be that you have served mankind. To paraphrase President John F. Kennedy's words: "Don't ask what the Massachusetts Dental Society can do for me, but what can I do for the Massachusetts Dental Society." ■



## Jo Ann C. Foley, DDS



**Residence:** North Andover

**Office Location:** Wilmington

**Specialty:** General Dentistry

**Education:** University of Missouri-Kansas City Dental School

**Number of Years in Practice:** 16

**Number of Years of MDS Membership:** 8



### Why did you choose to join the MDS?

Prior to relocating to the Boston area, I was active in my local district and dental society in Connecticut. So I recognized the importance of organized dentistry and wanted to get involved and meet new colleagues. Not being a native or a graduate of this area, I did not have a built-in network of peers, so I was eager to develop professional relationships and familiarize myself with dental concerns in Massachusetts. I was fortunate enough to meet Dr. Richard LoGuercio at one of my first MDS meetings. He has been so supportive over the years and is a big reason why I have become so active in the MDS.

### Why is involvement in organized dentistry important to you?

I think it is important to be involved and to have the opportunity to share ideas and experiences. We all have similar challenges in dentistry, and I believe each of us has something to contribute. Why not share your knowledge and experience to help the improvement and integrity of our profession? Imagine where we would be if we didn't.

### Please describe the extent of your volunteer experience in dentistry.

Since I had attended the Yankee Dental Congress prior to moving here, I was very familiar with the conference, so I was initiated into volunteering as room chair and presiding chair, which I continue to do. I also continue to enjoy working at the Continuing Education Pavilion with all the great staff at the MDS—especially Susan Karp and Lois Holt.

After attending a few local district meetings, I was invited by Dr. Howard Zolot to serve on the Council on Dental Education for the Merrimack Valley District. This eventually led to chairing the council. Dr. Viktoria Talebian and I served on the Council on Dental Education together, and she asked me to co-chair the Women's Leadership Conference at Yankee Dental Congress 32. That experience was a great opportunity to see how much hard work and collaboration go into making meetings like YDC come to fruition. It was a great learning experience, and it is the one that I am most proud of. We had a great response and received such wonderful positive feedback. This year, I was selected to be a participant in the second MDS Leadership Institute. I am very excited about the program and am looking forward to working with other MDS members.

### How has your volunteer experience impacted you professionally and personally?

I think, in general, it has made me a better dentist, not necessarily from a clinical perspective but from a professional-relationship perspective. Eight years ago I would—and did—walk into meetings where I did not see a familiar face. But because of the efforts of a few MDS members who extended themselves to me and gave me opportunities to become more involved, I now attend meetings where I feel welcomed and appreciated.

### What do you feel are the most important issues facing organized dentistry today?

Being near to the Boston area, we are lucky to be in proximity to three major dental schools that are on the cutting edge of research and technology. Over the years, I have also seen that patients have acquired a higher "dental IQ" and are more informed about cosmetic procedures and implants. Practitioners have a choice in how they want to tailor their practices to their own philosophy, be it high-end cosmetic or bread-and-butter procedures. Either way, there is a need for all aspects of dentistry, and we are so fortunate we can choose our own comfort level.

### Where do you see the future of organized dentistry in five years? 10 years?

I feel we will continue to see a steady stream of women entering the profession. I believe this field affords women the balance between a fulfilling career and a happy family life, which I think is unique compared to other professions. I also believe that technology is something we all have to embrace. So much is advancing and we need to stay current to maintain our standard of care and take advantage of the research that supports it.

### What would you say to a recent dental school graduate to convince him/her to get more involved in organized dentistry?

I would say that each individual has something unique to contribute, so look for an opportunity to share. Our profession can feel very "exclusive," especially if you are a solo practitioner. It is easy to stay isolated and quiet. So step out of your comfort zone, look around, smile and extend your hand at that next meeting, and be "inclusive" instead. ■

## Paula K. Friedman, DDS, MSD, MPH



**Residence:** Brookline

**Office Location:** Boston University Goldman School of Dental Medicine

**Specialty:** General Dentistry

**Education:** Columbia University College of Dental Medicine; Boston University Goldman School of Dental Medicine; Boston University School of Public Health

**Number of Years in Practice:** 33

**Number of Years of MDS Membership:** 30



### Why did you choose to join the MDS?

Prior to moving to Massachusetts in 1978, I applied for a license to practice here. Concurrently, I wanted to join the professional association that represents all dentists. I was an educator and in general practice and felt that I had the opportunity and responsibility to be part of the MDS at the same time. I have been a member ever since.

### Why is involvement in organized dentistry important to you?

It is through organized dentistry that we have a voice in determining the future of our profession and in influencing public policy. The American Dental Association (ADA) is one of the most effective advocacy groups in Washington, and the MDS has been the strongest advocate for oral health in the Commonwealth. Organized dentistry is always on the cutting edge of the interface among public policy, education, and the practicing community, and it is important to be part of the voice for our profession. I have also found very positive networking experiences within the MDS, and I would like to be part of the initiatives to embrace and engage a broader demographic within our organization.

### Please describe the extent of your volunteer experience in dentistry.

I have been involved in the Yankee Dental Congress for many years in various capacities, starting with room coordinator, then progressing to presiding chair, judging student posters, and general arrangements. I served on the YDC 33 Program Committee and will be one of the program co-chairs for YDC 34 in 2009.

I serve on the Women's Leadership Task Force, participated in the first MDS Leadership Institute, and was fortunate to have been selected to serve as one of the first MDS Guest Board Members. I have served as an Alternate Delegate to the ADA House of Delegates for the past two years. I also represent the Metropolitan District on the MDS Council on Education. This year, I was asked to serve as the first chair of the new Council on Public Affairs. Additionally, I speak on oral health and aging/geriatrics to professional and lay groups throughout the state. I serve on the Board of the American Society for Geriatric Dentistry and am past president of the American Dental Education Association, which represents all the dental schools in the United States and Canada, as well as many dental hygiene, dental assisting, and advanced education programs.

### How has your volunteer experience impacted you professionally and personally?

I have been fortunate to meet and learn from many outstanding members of our profession. The commitment that the MDS leadership has to improving the practice environment for the dental professional, to viewing oral health as a team effort, and to increasing access to oral health care has increased my commitment to the profession and to organized dentistry. It also has reinforced our collective responsibility to ensure that all citizens have access to care.

### What do you feel are the most important issues facing organized dentistry today?

The most important issues for the profession are access to care, ensuring environmental safety from the dental materials that we use, strengthening the dental team, working to increase our voice and influence in public policy in Massachusetts and nationally, helping to shape universal health care, supporting initiatives to maintain the quality of our dental education institutions, and encouraging the best and brightest of all demographic segments to enter the dental profession.

### Where do you see the future of organized dentistry in five years? 10 years?

We need to continue to work to expand the number of dentists actively involved in organized dentistry and be responsive to the needs of our members. I think that organized dentistry will need to engage in more interdisciplinary and intradisciplinary conversations and action plans. The more integrated we are in the health care system, the more our patients will benefit from other health care providers acknowledging that the mouth is connected to the rest of the body and that there is a strong link between oral health and systemic health.

### What would you say to a recent dental school graduate to convince him/her to get more involved in organized dentistry?

Involvement in organized dentistry will open doorways into areas that would otherwise be inaccessible, and no matter what your level of involvement, you will always gain more than you contribute. It's fun, it's friendly, and it's your future. ■

## L. Michael Gouveia, DMD



**Residence:** Dartmouth

**Office Location:** New Bedford

**Specialty:** General Dentistry

**Education:** Tufts University School of Dental Medicine

**Number of Years in Practice:** 29

**Number of Years of MDS Membership:** 22



### Why did you choose to join the MDS?

I initially joined because my mentor, Dr. Norbert P. Fraga, convinced me that the MDS was an organization that worked hard for its members. Through the years, I have come to appreciate the value of all the effort that goes into the various programs, such as YDC, the inception of EDIC, the Mobile Access to Care (MAC) Van, and the MDS Foundation.

### Why is involvement in organized dentistry important to you?

Organized dentistry has allowed me to indulge my desire to provide volunteer dental care. As practitioners, we often do our work in the isolation of our own offices. I am amazed at the power of our resources when we pool our energy and talents for a common cause.

### Please describe the extent of your volunteer experience in dentistry.

In 1978, I "volunteered" for a paid position with the National Health Service Corps and worked for seven years in Appalachia at a start-up community health clinic. Two years ago, I joined the Mission of Mercy (MOM) Project in New Orleans, a massive weeklong health care project held at the New Orleans Zoo. This was a life-changing event for me—watching 200 of my colleagues working to provide much-needed care. The event was organized by the Virginia Dental Society and spearheaded by Dr. Terry Dickinson, who inspired me to act last year when the Southeastern District Dental Society (SDDS) was looking for a volunteer to head up the ADA's *Give Kids a Smile Day*.

I organized *Give Kids a Smile Day* in conjunction with the initial outing for the MAC Van in February 2007. The MAC Van was used for comprehensive treatment planning, including exams and X-rays, as well as as prophys and sealants. One month after the Van's visit to New Bedford, more than 20 dentists worked together to provide 81 middle-school-aged children with free comprehensive care, including restorative, endodontics, periodontics, orthodontics, and oral surgery. Both the MAC Van and *Give Kids a Smile Day* had wonderful participation from my fellow SDDS members, as well as from volunteer dental assistants and hygienists. Nobody said no to me when I asked him or her to participate. Not once!

Last year, the Southeastern District and the MDS worked to successfully pass the fluoride referendum in New Bedford. It was a group effort, but my most significant role was being interviewed on the local cable access station, speaking Portuguese. There is a very large Portuguese-speaking community in New Bedford, and this enabled us to reach an audience that might have remained unaware of the issue at hand and helped to turn the tide. In July, my wife, Linda, and I volunteered for another MOM project in Virginia. In two-and-a-half days, 300 volunteers treated more than 1,300 patients and provided more than \$1 million in free services.

### How has your volunteer experience impacted you professionally and personally?

My call to dentistry as a career came from a sincere desire to help people. Volunteering has enabled me to reach a population who often has neither the resources nor the ability to access my services. Reaching out to them provides rewards that monetary payment just does not fulfill. I think that we take for granted what we actually do for people. Most of us have no idea what it feels like to have no opportunity to access a dentist. It is such a powerful experience to see how much of an impact we have on people.

### What do you feel are the most important issues facing organized dentistry today?

Access to care remains the single most important issue for many individuals. Because it can only be in one location at one time, the MAC Van is a great start but it provides limited resources to address this issue. Improvements to MassHealth should be providing much-needed assistance, but the results thus far have been dismally poor. Education about prevention for the underserved could do much to alleviate the severe need for access to care. My work with the MAC Van and *Give Kids a Smile* has demonstrated to me that uneducated parents remain a huge obstacle to reaching the children most in need. Uneducated parents lack motivation to participate, even when the services provided are free.

### What would you say to a recent dental school graduate to convince him/her to get more involved in organized dentistry?

I would encourage new dentists to take time away from growing practices to look at what their senior colleagues are doing as a group. The opportunities for participation within the MDS are varied enough for everyone to find their own niche and participate. Start by attending meetings and see what catches your interest, then jump in as soon as possible. ■



## Robert S. Leland, DMD



**Residence:** Dorchester  
**Office Location:** Hanover  
**Specialty:** General Dentistry  
**Education:** Tufts University School of Dental Medicine  
**Number of Years in Practice:** 6  
**Number of Years of MDS Membership:** 10 (4 as student member)

### Why did you choose to join the MDS?

I loved being involved in organized dentistry as a student and leader within the American Student Dental Association. The late Dr. Richard Forcucci also turned me on to involvement more specifically with the MDS. He'd bring me to local meetings in the South Shore District and encourage my involvement with the MDS as a student and later when I graduated. It seemed like a "no-brainer" to join and get involved, not only with my district but with other groups within the MDS, as well.

### Why is involvement in organized dentistry important to you?

Organized dentistry is indeed the voice of our profession, so it seems that in order to participate and become involved in dentistry, you get involved with the organization that is the voice. I'm still "old school" in some respects because I see dentistry as a profession, not just a job. I take pride in being a dental professional and part of that pride means giving back to the profession. I have chosen to do that through participation and involvement in organized dentistry.

### Please describe the extent of your volunteer experience in dentistry.

I've been on the Council on Membership since my second year of dental school. I have been chair of the Council since 2003, which also extends to acting as the chair of subcommittees and task forces that are related to membership, such as the Standing Committee on the New Dentist. Last year, I served as a Guest Board Member on the MDS Board of Trustees and participated in the first MDS Leadership Institute program. I am currently chair of the South Shore District, and I have participated in other activities in the district, as well as local CHIP programs. At the Yankee Dental Congress, I have volunteered in various capacities, from presiding chair and room chair to coordinator of Team Development Day to general arrangements. Most recently, I was appointed to the American Dental Association Committee for the New Dentist.

### How has your volunteer experience impacted you professionally and personally?

It has been a wonderful way to meet other dentists from my district, as well as from around the state and nationwide. It's nice to get out of the office and have the ability to discuss cases. Dentistry can be isolating at times, and it's great to be able to interact with other dental professionals on a regular basis.

Being involved in organized dentistry also has allowed me to feel more a part of the profession and of what happens in the profession outside the walls of my office.

### What do you feel are the most important issues facing organized dentistry today?

As the profession continues to evolve, the biggest issues are catering membership to an ever-changing world/demographic of the dental professional, as well as maintaining the dental profession as a profession governed and shaped by dentists and dental professionals themselves, not outside management or uninformed legislators.

### Where do you see the future of organized dentistry in five years? 10 years?

It's tough to imagine that organized dentistry will be the same in five and especially in 10 years. The face of dentistry itself is changing, and I'm confident that organized dentistry can and should keep up. I think that involvement in organized dentistry in political action will increase, as nonprofessionals attempt to tell dentists how to practice. I think that dental societies themselves will change to the extent that meetings and the "nuts and bolts" parts of the dental societies will change. This change may mean less face-to-face contact, perhaps, but actually include a more efficient exchange of information and ideas. Basically, advances in technology will allow us to conduct "virtual meetings" where we can interact without physically being in the same room. This will help accommodate the changing lifestyles of present and future dentists and significantly change the way that dental societies do business.

### What would you say to a recent dental school graduate to convince him/her to get more involved in organized dentistry?

I would tell them to just offer any time and energy that they can spare for organized dentistry. Our profession should be shaped and molded by dentists, and the only way to ensure that dentistry can thrive in the future is to play a part in the way the profession evolves. ■



## Edward M. Salamoff, DMD



**Residence:** Natick  
**Office Locations:** Brookline and Natick  
**Specialty:** General Dentistry  
**Education:** Tufts University School of Dental Medicine  
**Number of Years in Practice:** 35  
**Number of Years of MDS Membership:** 35

### Why did you choose to join the MDS?

I joined to be part of an organization that seeks to advance and protect the ethics and rights of dentistry. I further joined to get down in the trenches and work toward these ends.

### Why is involvement in organized dentistry important to you?

Too many members of our profession sit idly back and complain. This is human nature. There are "movers and shakers" who are willing to do the "dirty work," and I am of that ilk. The status quo may be comfortable to many, but if organized dentistry is to keep up with the present and advance into the future, there must be men and women willing to give of themselves toward this end.

### Please describe the extent of your volunteer experience in dentistry.

I started off as a member of the Council on Dental Health, representing the Metropolitan District. I next became Budgetary Chair of the Metropolitan District Dental Society while still maintaining my Council position. I moved through the "chairs" and eventually became chair of the Metropolitan District. I then got involved with the MDS-PAC and governmental affairs.

Throughout the years, which have flown by all too quickly, I have lectured extensively on the importance of oral health to elementary school children and senior citizens. I enjoy public speaking and have appeared on Boston Access TV. I have even presented twice at the Yankee Dental Congress on public speaking. I have worked just about every year at YDC as a presiding chair or room coordinator. In 2006, I was honored to receive the Metropolitan District Dental Society's John Burke Volunteer Award.

### How has your volunteer experience impacted you professionally and personally?

Over the years, I have made many valued friends through my involvement with various councils, committees, and YDC. Involvement has given me a "hunger" to continually improve myself and share new knowledge with others.

### What do you feel are the most important issues facing organized dentistry today?

Keeping the dental health team together and not having separate practices for dentists and hygienists is very important, as is protecting the rights of dentists to train their personnel and still offer them the opportunity for advancement through more formal education. It is also vital that the access to fluoride be available to all. Above all this is the need to make dentistry available to all who seek it.

### Where do you see the future of organized dentistry in five years? 10 years?

Unfortunately, I am not Nostradamus. I would like to think that we would still be fighting the little and big brush fires that pop up. I see dentistry in Massachusetts reaching out to all corners of the state, allowing for true "access for all."

### What would you say to a recent dental school graduate to convince him/her to get more involved in organized dentistry?

I would say, "This is the profession that you have chosen and if you want to succeed in it and see the profession grow, you must get involved and protect dentistry's interests." ■



# Peripheral Complex Odontoma in a Pediatric Dental Patient: A Case Report

**MELINA AMY ILIEF-ALA, DMD**  
**ELLEN EISENBERG, DMD**  
**GREGORY MATHIEU, DDS**

*Dr. Ilief-Ala is an associate pediatric dentist based in Billerica. Dr. Eisenberg is a professor in the department of oral health and diagnostic sciences, and Dr. Mathieu is an associate professor in the department of craniofacial sciences at the University of Connecticut Health Center in Farmington, CT.*

## Abstract

**O**dontomas are the most commonly occurring benign odontogenic tumors of the jaws.<sup>7</sup> Although a majority of odontomas are intraosseous,<sup>6</sup> there are case reports of odontomas that erupted into the oral cavity.<sup>2</sup> Even less common are peripheral or soft-tissue odontomas, only a few of which have been reported to date.<sup>4,7,8,11</sup> We report a peripheral odontoma that arose in the alveolar mucosa of the posterior maxilla in a young child. The diagnosis, complications, treatment, and prognosis of this entity will be discussed.

## Introduction

Odontomas are the most commonly occurring tumors of odontogenic origin.<sup>7</sup> Many consider these lesions to be hamartomas, rather than true benign neoplasms.<sup>1,7</sup> In most cases, odontomas arise within the jawbones, rather than within the overlying soft tissues.<sup>1</sup> The following is a case of an odontoma that presented itself clinically as an extraosseous mass within a sac of soft tissue located external to the alveolar process.

## Case Report

A 33-month-old female presented to the emergency department of the Connecticut Children's Medical Center for diagnosis and management of a soft-tissue mass in the maxillary right posterior quadrant. According to the mother, the child had manipulated the mass, which then ruptured and bled. The mother noticed bleeding from the site before she actually observed the mass itself. The medical history was noncontributory. Oral examination revealed a translucent, pedunculated sac-like mass attached to and suspended from the crest of the maxillary alveolar ridge in the region



**Figure 1.** Initial clinical presentation of a pedunculated soft-tissue sac in the maxillary right posterior quadrant, which contained the mineralized mass.

of the erupting maxillary right first primary molar, whose eruption was considerably delayed, and the unerupted maxillary right second primary molar (see Figure 1).

On palpation the mass was asymptomatic and contained a hard structure. Primary teeth C through I and K through T, respectively, were fully erupted. The surrounding alveolar mucosa appeared to be mildly erythematous and swollen. All other oral findings were unremarkable. A lateral maxillary occlusal radiograph revealed two discrete globular opacities located in the proximity of the maxillary right primary molars (see Figure 2). The larger mass appeared to be



**Figure 2.** Radiograph of the right maxillary posterior region. Both the soft-tissue lesion and underlying alveolar process reveal tooth-density calcified masses.



**Figure 3.** Hard-tissue specimen removed from soft-tissue sac consisted of a 0.5 cm x 0.5 cm x 0.3 cm mineralized mass that resembled a toothlike structure.

positioned occlusal to the maxillary right primary first molar; this was thought to be attributable to the displacement of the sac during film placement.

The smaller mass appeared to be located in the attached tissue in the area distal to the maxillary right first primary molar. The opacifications were similar in density to dentin. In addition to the delayed eruption of the affected molars, there was distal displacement of the second primary molar.

During the visit, the child forcibly squeezed out the larger calcified portion of the mass, which was approximately 0.5 cm x 0.5 cm x 0.3 cm in dimension and resembled a small toothlike structure grossly (see Figure 3). This specimen was submitted to the oral pathology laboratory for histological processing, including decalcification and microscopic exami-

nation. The clinical differential diagnosis included odontoma, ameloblastic fibro-odontoma, and calcifying odontogenic cyst ("Gorlin's cyst") with odontoma. Since the patient was growing increasingly uncooperative during this initial visit, the decision was made to reevaluate the area in one week.

At the one-week follow-up visit, the mother had mentioned that the child had removed the pedunculated soft-tissue mass with her fingers sometime after her initial presentation to the clinic. Clinical examination confirmed both that the soft-tissue mass was absent and that the resulting wound appeared to be healing. A periapical radiograph revealed that the smaller radiopaque mass was still present in the attached tissue (see Figure 4).



**Figure 4.** Follow-up radiograph showing retained smaller calcified mass.

### Microscopic Analysis

Histopathological examination of the submitted specimen revealed malformed elements of recognizable mature dental tissues, including enamel matrix, dentin, and cementum lacking an organized

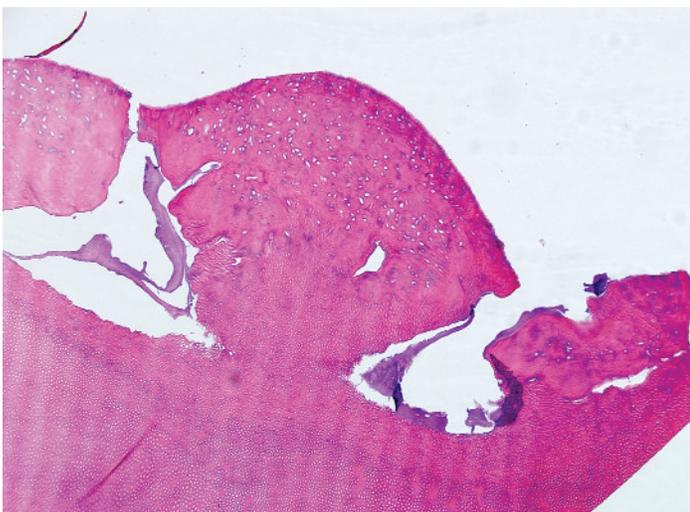
arrangement (see Figures 5a and 5b). These findings, along with the clinical examination, were diagnostically consistent with complex odontoma tissue.

### Discussion

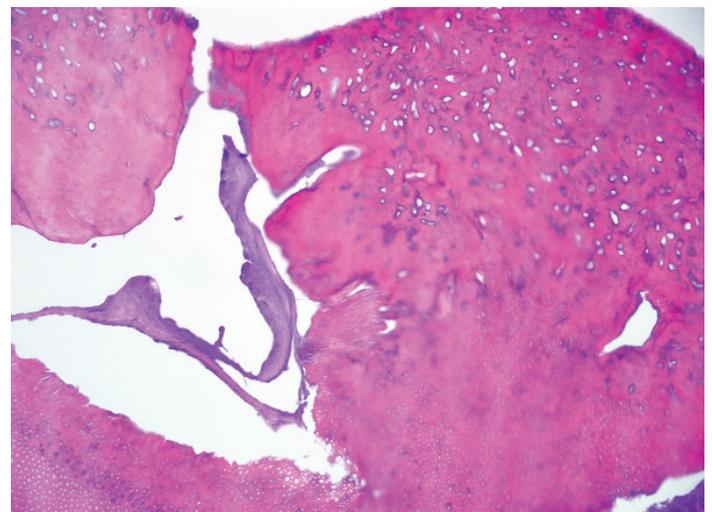
Odontomas comprise approximately 22 percent of all odontogenic jaw tumors<sup>3</sup> and are reportedly the most common odontogenic tumors in North America.<sup>1</sup> Odontomas are often considered to be odontogenic hamartomas (i.e., malformations of tooth development) rather than true benign neoplasms.<sup>1,7</sup> They arise from primitive ectomesenchymal tissues<sup>1</sup> and are comprised of varying amounts of enamel, dentin, cementum, and pulpal tissue.<sup>5,7,8</sup>

Odontomas are usually classified as "compound" or "complex" types.<sup>7,8</sup> The odontomas that are comprised of dental tissue elements arranged so that they resemble recognizable teeth or toothlike structures are referred to as compound types, whereas complex-type odontomas consist of a mass or masses of disorganized dental tissues without any semblance of functional arrangement.<sup>1,5,7,8</sup> Some odontomas may be a combination of both compound and complex types ("composite" odontomas),<sup>1,2</sup> while others cannot be classified distinctly as any particular type.<sup>2</sup>

Odontomas may arise anywhere in the jaws but tend to occur more frequently in the maxilla than in the mandible.<sup>1,6,7</sup> Although the lesions are usually intraosseous,<sup>6</sup> there have been a few isolated reports of odontomas that



**Figure 5a.** Photomicrograph of odontoma tissue demonstrating elements of recognizable mature dental tissues, including enamel matrix, dentin, and cementum. Hematoxylin and eosin X10.



**Figure 5b.** Higher power. Note the somewhat haphazard, disorganized arrangement of these tissues relative to one another. Hematoxylin and eosin X40.

have erupted into the oral cavity.<sup>2</sup> Still rarer are “peripheral” or “soft-tissue odontomas,” of which only a few have been reported to date.<sup>4,7,8,11</sup> Odontomas are often discovered as incidental radiographic findings<sup>1,2,4,6,7</sup> and occur with equal frequency in males and females.<sup>2,4</sup> They are generally asymptomatic<sup>1,2,4,6</sup> and slow-growing.<sup>6</sup> Large lesions (e.g., >6 cm) can cause expansion and swelling of cortical bone.<sup>6,7</sup>

Odontomas associated with expansion of the bone are more often diagnosed in children and adolescents,<sup>2,4</sup> since the first two decades of life represent the period during which the formation of the dentitions is in its most active phases. The most common sequela associated with an odontoma is the failure of a primary or permanent tooth to erupt.<sup>4,5,7</sup> The association with dentigerous cyst formation is also common, since like any other developing tooth, an odontoma is surrounded by dental follicular tissue that may become cystic.<sup>4</sup> Odontomas also can arise in association with a calcifying and keratinizing odontogenic cyst (Gorlin’s cyst).<sup>4,8,9</sup>

Treatment of odontomas is conservative and generally involves surgical removal of the lesion along with any associated investing soft tissue, with little or no chance of recurrence.<sup>2,4,6</sup> Once removed, both radiographic and clinical follow-up are essential to monitor eruption and location of the permanent teeth. Early detection and treatment of odontomas is essential to prevent complica-

tions (e.g., delayed eruption of primary or permanent teeth, occlusal disharmonies, resorption of adjacent teeth, and swelling) and to ensure an optimal prognosis.<sup>6</sup>

This patient’s case is particularly interesting because the follicular sac of the odontoma was positioned entirely external to the alveolar bone, along with a component of the lesion within the attached gingival tissue. It is likely that the peripheral odontoma caused delayed eruption of the maxillary right primary first and second molars.

Ide et al. have suggested that the gradual maturation of a peripheral odontoma may lead to its unaided eruption into the oral cavity.<sup>10</sup> In our patient’s case, given the history of forced expulsion of the larger mass, the histopathologic findings, the age, and the progressively uncooperative behavior of the child, the decision was made to continue to monitor the smaller calcified mass for spontaneous exfoliation for a short period of time (~2-3 months). The need for surgical intervention was to be reconsidered at subsequent recall visits. However, despite repeated efforts to make contact, the patient failed to return to the clinic and was lost to follow-up. ■

### Acknowledgements

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# Know Your Indicator

**PHILIP MILLSTEIN, DMD, MS**

*Dr. Millstein is a prosthodontist with a practice based in Cambridge. He is chair of the Middlesex District and a former MDS Trustee.*



Figure 1. Blank model, no markings.

Recently, someone asked me what kind of occlusal indicator I used to determine occlusal contacts. I thought about it, but I couldn't give a definitive answer. Then I did a library search, but didn't get very far since there are few papers on this subject. There are also no American Dental Association standards on the subject. So I figured out a way to see for myself. This is not a scientific paper and there are no statistics. But I can visually see a difference. I am working within the "least-damaging principle," which relates to the adage of "do no harm."

The procedure is as follows: Impact-resistant plastic dental casts are articulated and mounted on a semiadjustable articulator. The hinge axis is fixed and repeatable. The incisal guide pin is adjusted so that it makes contact with the incisal guide plate. Various indicators are tested by placing them between the opposing teeth and striking the articulator closed. This is done one and three times. The recordings are photographed at a fixed distance and the results are assessed.

I consider small, discreet, nonsmudged markings as accurate. Finding these markings should be a repeatable procedure.

In this way, when I select an indicator, I am able to standardize the results of the markings in my mind so that each time I use a said indicator, it will give me the results that I am looking for. Otherwise, I would not be able to trust the markings of the indicator and my readings could become an aberration. In this case, as shown by the recordings in Figures 3a and 3b, a 37-micron-thick indicator, which is nonsmudge, works best. The other recordings shown in the figures may be of importance to certain clinicians, but I am not sure how to interpret the results.

Do I remove more tooth structure than required because the indicator dictates that the recordings I have made are exaggerated? Or do I follow a conservative program where I am always certain that my results are minimal rather than maximal, so that I don't remove tooth structure under the exaggerated markings? I try to do one strike so that I will not inadvertently exaggerate the findings. If I feel that I need to refine the markings, I go to an articulating film, such as the one shown in Figures 2a and 2b. Articulating films work by punching out the color onto the tooth structure, whereas articulating papers transfer some of the color to the tooth while some remains on the paper. It is virtually a colored wax paper so that the paper bends when you bite against it, whereas the film transfers the color directly to the tooth. I do not use occlusal indicator wax because I find it too difficult to work with.

Remember the least-damaging principle because the removal of essential tooth or crown areas is final. ■



Figures 2a and 2b. Exacta Film, 19 microns. Figure 2a represents one strike and Figure 2b represents three strikes.



Figures 3a and 3b. XX Thin Blue Articulating Paper, 37 microns. Figure 3a represents one strike and Figure 3b represents three strikes.



Figures 4a and 4b. X Thin Blue Articulating Paper, 63 microns. Figure 4a represents one strike and Figure 4b represents three strikes.



Figures 5a and 5b. Thick Blue Articulating Paper, 225 microns. Figure 5a represents one strike and Figure 5b represents three strikes.

*All materials tested were provided by the manufacturer, Whip Mix Corp. (Louisville, KY) at no cost. All opinions expressed are solely those of the author.*



# Autogenous Attachment Technique with Esthetics in Mind: A Trauma Management Case Report

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## Abstract

**T**he majority of dental trauma involves anterior teeth, especially the maxillary central incisors. A crown fracture with pulp tissue involvement, severe sensitivity, and pain is certainly unpleasant for the patient. This case report will discuss the endodontic therapy and restoration with an autogenous tooth fragment attachment technique. When treating an emergency situation that involves trauma, it is challenging to provide the patient with both pain relief and esthetic restoration.

## Introduction

Dentoalveolar trauma and soft-tissue damage are common injuries. Backyard play (58.2 percent) and sports (31.8 percent) are the main causes, with “falls” being a very popular injury.<sup>1</sup> Subluxations (56.3 percent) constitute the most common injury, with crown fractures (28.8 percent) second, followed by avulsions (7.2 percent). There are no gender differences in dentoalveolar trauma even though boys are ahead of girls in a ratio of 5:3 for suffering trauma in general. The majority of dental trauma involves anterior teeth, especially the maxillary central incisors, while the mandibular central incisors and maxillary lateral incisors are less frequently affected.<sup>2,3</sup> The anterior crown repair is a challenging procedure, especially in children. The shape of the teeth, their eruptive developing pattern, and matching with adjacent teeth are difficult issues. An emergency crown fracture with severe sensitivity and pain is unpleasant for both the child and the parent. The dentist has to provide pain relief, an esthetically acceptable restorative solution, and emotional decompression.

**Table 1: Andreasen and Andreasen’s Classification (1993)**

Class I	Enamel infraction (crack)
Class II	Enamel fracture (crown fracture, not complicated)
Class III	Enamel-dentin fracture (crown fracture, not complicated)
Class IV	Complicated crown fracture
Class V	Crown-root fracture, not complicated
Class VI	Complicated crown-root fracture
Class VII	Root fracture

**Table 2: Spinus and Altana’s Classification (2002)**

A Class	Simple enamel lesions involving one proximal angle or only incisal edge
B Class	Enamel-dentin lesions involving one proximal angle or only incisal edge
B1 Subclass	—with pulp exposure
C Class	Enamel-dentin lesions involving the incisal edge and a third of the crown
C1 Subclass	—with pulp exposure
D Class	Enamel-dentin lesions involving the mesial or distal angle
	And the incisal or palatal surface
	And root involvement
D1 Subclass	—with pulp exposure

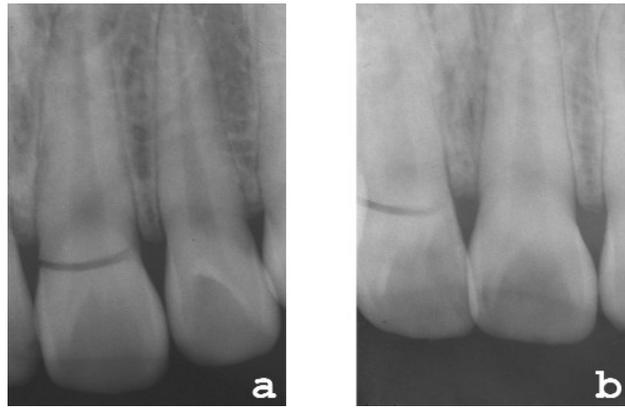
In this adhesive era, dentists have many techniques and materials available in order to provide patients with good esthetic and functional results. A multidisciplinary approach is the key. The patient should leave the dental office relieved from pain and with an esthetic temporary or permanent restoration.

This case report will present an emergency situation of an adolescent patient who presented with crown fracture (Class D1, see Table 2). There are several “crown fracture” classification systems in the literature, such as Andreasen and Andreasen’s Classification (see Table 1). The most recent one in 2002 by Spinus and Altana (Table 2) may describe the clinical crown fracture better and it is easy to remember. In this case, endodontic therapy was followed by an autogenous tooth fragment attachment technique. There was a follow-up appointment four years later.

### Case Report

A 15-year-old patient came to the office with his parents, having pain as his chief complaint. The patient had an accident one hour before while he was playing in his backyard. For a short time after the accident, his lips were bleeding. Since then, tooth #9 was very sensitive to touch; simply breathing air was uncomfortable for him. He experienced spontaneous, strong pain at the accident scene.

The patient reported no medications or allergies and was in good general health. During clinical examination, the attached gingival tissue on tooth #9 appeared slightly reddish; the clinical crown, slightly lingual verged, appeared longer than the other central incisor. A horizontal fracture line ran along the labial surface of the tooth at the cervical third. The gingival tissue was probed around the tooth within normal limits. Periapical radiographs were taken from straight-on and angulated views.



**Figures 1a and 1b. Preoperative radiographs. Straight-on view (1a) and angulated view of the fracture plane (1b).**



**Figure 2. Initial appointment. Preparation for splint cementation.**



**Figures 3a and 3b. Initial appointment. Splint placed (3a) and pulpectomy performed (3b).**



**Figure 4. Second appointment. Separation of crown fragment.**

The trauma was classified as a complicated crown fracture, Class D1 per Spinus and Altana (see Table 2). Vitality testing with a stream of cold water demonstrated tooth #9 was hypersensitive with lingering pain. On palpation, tooth #9 was tender at the cemento-enamel junction (CEJ). Percussion was not performed as the clinical crown was mobile.

The lower teeth experienced normal response with cold test and no sensitivity to percussion or palpation. Periapical radiographs taken for the lower anterior incisors showed no significant findings. The periapical radiograph of tooth #9 showed a horizontal fracture line parallel to the alveolar crest that extended from the mesial to the distal of the CEJ running through the roof of the pulp chamber. With a diagnosis of irreversible pulpitis, the treatment of choice was endodontic treatment for tooth #9 with favorable prognosis. The patient’s parents gave informed consent for treatment.

After the administration of local infiltration anesthesia, teeth #8, 9, and 10 were splinted together with a wire embedded in composite resin, and bonded to an acid-etched (35 percent phosphoric acid) tooth structure. Splinting was performed for both functional and esthetic reasons.

The rubber dam was placed on tooth #10, and tooth #9 was accessed from the lingual side. Bleeding pulp tissue was removed and root canal space was instrumented up to a #60 Kfile at working length. Calcium hydroxide paste from a premixed syringe was introduced into the canal for its antibacterial properties and as a temporary physical barrier. The tooth was temporized with glass ionomer restorative material. Ibuprofen (400 mg) every five hours for the first 24 hours was suggested to alleviate pain. The next day, the patient was contacted by phone and he reported no pain and good morale.

Four days later, on a second appointment, anesthesia was given

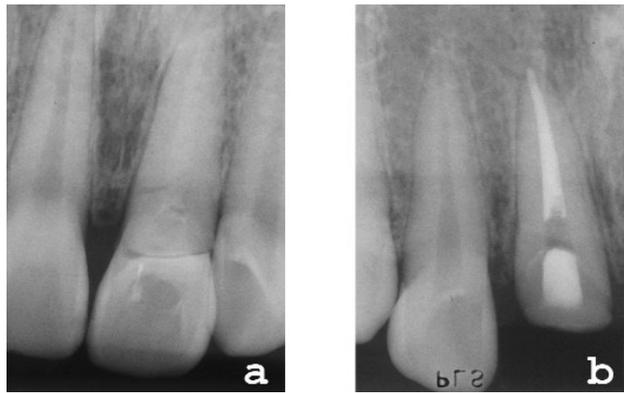
and the splint was removed with an ultrasonic scaler. The fractured portion of the clinical crown was separated from the root using forceps. The fracture plane was exposed with electrosurgery for bleeding control. The clinical crown was soaked in hydrogen peroxide to be cleaned from all the temporary materials and then left to dry. A rubber dam was placed on the adjacent teeth without clamp. The remaining root was irrigated with NaOCl 5.25%, dried and obturated with gutta-percha and sealer. Post space was prepared leaving 5 mm of gutta-percha filling at the apex.

A prefabricated post was cemented with resin-reinforced glass ionomer cement. The excess cement was removed and the margins were polished. Then the clinical crown was placed in contact with root segment at the fracture line, acid etched, bonded, and restored as above. The result was a satisfying solution to the patient and his parents. The patient was advised to follow up for consultation, but he did not come to his recall appointment. However, at a subsequent appointment four years later, it was noted that the esthetic restoration was still in place. The palatal attached gingivae appeared normal. On percussion, the patient reported a slightly “different” sensation when compared with adjacent teeth. Palpation was negative and the periapical radiograph showed normal periradicular bone.

## Discussion

The incidence of dental trauma is on the rise due to increased sports activities.<sup>1</sup> Emergency trauma cases are clinical situations that require the dental experts to have a multidisciplinary approach. Treatment decisions have to be made case-by-case for the individual patient. It is quite important to begin treatment with the esthetic end result in mind. The tooth reattachment technique produces good esthetic and functional results. Moreover, the patient’s self-esteem remains positive due to maintaining the natural appearance of his teeth.

Important factors for tooth reattachment are: the degree of the fragment’s adaptation to the remaining structure; fragment retention; fracture location; and pattern. Few studies have attempted to evaluate the fracture strength of the reattached teeth. The interface



**Figures 5a and 5b. Second appointment. After splint removal (5a), radiograph shows CaOH as intracanal temporary fill. Crown was removed (5b) and endodontic treatment was completed with Cavit as temporary access fill.**



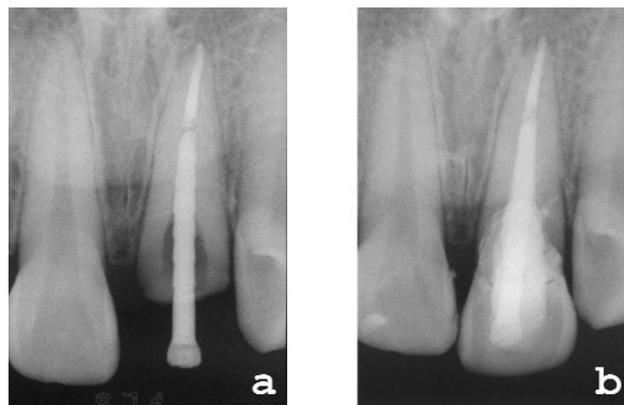
**Figure 6. Electrosurgery for bleeding control at palatal side.**



**Figure 7. Natural crown needs to be cleaned from sealer.**

occlusal stress on various dowel designs.<sup>7</sup> They concluded that parallel-sided dowels and cores with a length of 12 mm distributed the stress widely in the restoration and dentin, resulting in decreased root stress. Nevertheless, they also found that the direction of the functional load had a greater effect on maximum stress and displacement than the dowel design. With this in mind, the restorative dentist should check occlusal contacts of the restored tooth both in centric occlusion and during eccentric movements. The finished restoration should contact lightly in centric occlusion and have no contacts in any protrusive and/or lateral movements.

Adhesive luting systems, preferably dual-cured, fill in the root canal/post interface and the pulp chamber as an inner support. In this case, careful selection of composite color was necessary to accommodate tooth brightness and conceal the post within. Resin fiber posts could be a good alternative for restoring anterior fractured teeth with the autogenous tooth fragment attachment technique. When the fragment appears to have good adaptation to the remaining tooth above the alveolar bone with minimal invasion of the biological width, the reattachment technique should have good performance. Prognosis, based on clinical evidence, is very good with long-term wear even more predictable versus



**Figures 8a and 8b. After separated crown piece was cleaned, post was placed (8a) and post and crown were cemented (8b) as described.**

direct adhesive restorations.<sup>8</sup> However, fractured reattached teeth show a high degree of failure to labial horizontal forces with new trauma.<sup>4</sup> The need for full-coverage restoration can be reevaluated at follow-up appointments, depending on esthetic (possible discoloration) or functional (occlusal) need.

In cases where periodontal tissues are involved in an unfavorable fracture pattern, crown-lengthening procedure to restore biologic width is necessary.<sup>9</sup> When the remaining tooth structure is not adequate to support the adhesion of the separated coronal piece with the autogenous tooth fragment attachment technique, restoration of the tooth with a post-and-core buildup and a crown is indicated. A temporary crown should be given to the patient for esthetic reasons at the first appointment in coordination with the endodontic therapy.

### Conclusion

For traumatized patients with broken teeth, pain relief and an esthetic immediate restoration is the treatment goal. ■



**Figure 9. Separated crown has been reattached.**



**Figures 10a and 10b. Four-year follow-up. Angulated view (10a) and straight-on view (10b).**

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# A Clinico-Pathologic Correlation

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**Figure 1.** Vesiculobullous lesions of pemphigus vulgaris on the skin.

## History

**A** 45-year-old Caucasian female was referred to the oral medicine clinic at Tufts University School of Dental Medicine for evaluation of an ulcerative lesion at the back of her throat. Upon clinical examination, the patient presented with bleeding gums, tissue necrosis, dry mouth, and vesiculobullous lesions on the skin (see Figure 1). Periodontal examination revealed generalized gingival inflammation and bleeding on probing. Periodontal diagnosis was generalized chronic mild to moderate periodontitis. The gingiva showed a positive Nikolsky's sign (see Figures 2 and 3). The radiographic findings revealed generalized horizontal bone loss. There was no mobility of any teeth and they tested vital.

Xerostomia evaluation was performed and laboratory findings were as follows: Unstimulated salivary flow rate was 0.006 ml/min in 15 minutes. Schimmer's test was negative for dry eyes (12 mm in 5 minutes). The patient's blood report was positive for ANA (1:320 speckled). The medical history was significant for elevated antithyroglobulin and antithyroid peroxidase levels.

## Differential diagnosis

Pemphigus vulgaris  
Mucous membrane pemphigoid  
Erosive lichen planus  
Erythema multiforme

## Clinical Diagnosis

Vesiculobullous disease suggestive of pemphigus vulgaris

## Biopsy

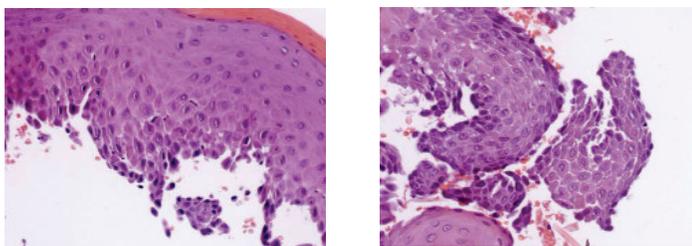
The patient underwent an incisional biopsy of the lesion. Samples were collected from the gingiva and buccal mucosa. The specimens were fixed in formalin and Michel's solution for histopathologic examination and direct immunofluorescence examination, respectively.

## Histopathologic Examination

Microscopic tissue sections of the received specimen showed stratified squamous epithelium. The epithelium exhibited parakeratosis, acanthosis, and acantholysis (see Figures 4 and 5). There



**Figures 2 and 3.** Vesiculobullous lesions of pemphigus vulgaris on the attached gingiva



**Figures 4 and 5. Suprabasilar split and acantholysis in lesional tissue.**

was no basal cell layer or connective tissue present in the specimen. Specifically, the cells of the spinous layer exhibited loss of cohesion and rounding up. Tzanck cell formation was noted.

Direct immunofluorescence studies were performed on frozen sections from gingival biopsy and revealed intracellular localization of IgG in a spinous layer, in a netlike pattern (see Figures 6 and 7).

## Diagnosis

Pemphigus vulgaris

## Discussion

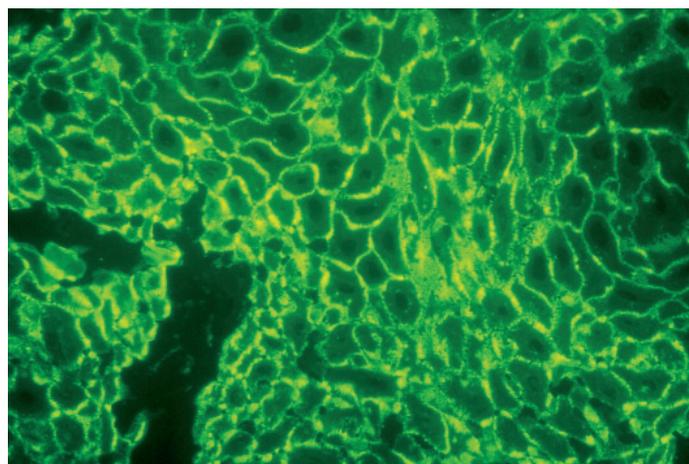
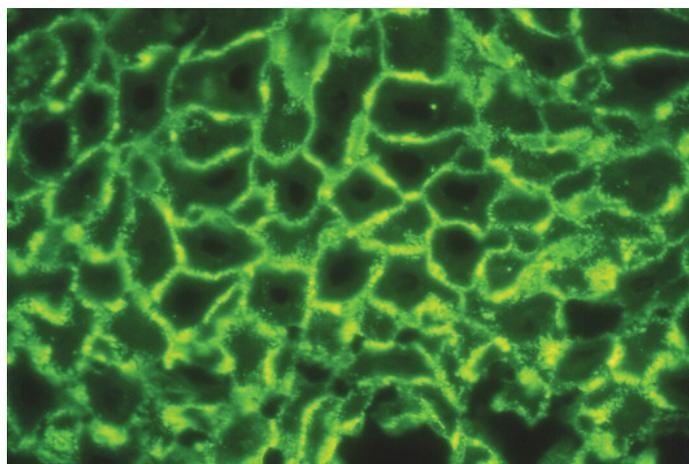
There are three types of pemphigus: pemphigus vulgaris (PV), pemphigus foliaceus (PF), and pemphigus erythematosus (PE). Pemphigus may also be associated with neoplastic (paraneoplastic pemphigus) and rheumatologic disorders.

Pemphigus is a blistering disease that affects skin and mucous membranes with variable severity. The two immune variants that predominantly affect the oral cavity are the mucous membrane and mucocutaneous types.<sup>1,2</sup>

In the mucous membrane type, patients complain of painful, persistent ulcers and sloughing, which may affect any part of the oral cavity but is commonly seen in the buccal mucosa, palatal mucosa, and lips. The ulcerations may affect other mucous membranes such as conjunctiva, nasal mucosa, pharynx, larynx, esophagus, and genital mucosa, and the Nikolsky test is positive.<sup>1,3</sup>

Localized lesions in the oral cavity are not life-threatening and the mortality associated with this disease is 10 percent to 15 percent, which can be mainly attributed to secondary infection, dehydration, and complications of therapy.<sup>4</sup> Pemphigus has a rapid onset, but progression is variable. About 75 percent of patients undergo remission after 10 years of therapy.<sup>1,2</sup> Oral lesions tend to precede cutaneous findings. Our patient presented with desquamative gingivitis, characterized by scattered, irregularly shaped areas in which the gingival is denuded and is strikingly red in appearance. The overall appearance of the gingiva is speckled. Epithelium is friable and can be easily removed from the underlying connective tissue, leaving a red surface that bleeds readily to trauma. Desquamative gingivitis may also be a manifestation of diseases such as erosive lichen planus (ELP) and benign mucous membrane pemphigoid (BMMP). However, the histology and direct immunofluorescence findings are distinctly different in each case.

The pathogenesis of PV involves an autoimmune reaction against an epithelial component. Specifically, the IgG autoantibodies produced against desmoglein 3 are thought to hinder the



**Figures 6 and 7. Direct immunofluorescence pattern in lesional tissue is characteristic of pemphigus vulgaris.**

extracellular linkage of adjacent cells in the desmoglea of desmosomes. As a result, spinous layer cells do not adhere to one another and the epithelium falls apart. Hemidesmosomes at the basement membrane are not affected because they do not contain desmoglein 3, so the basal cells remain attached to the basement membrane.<sup>1,2</sup>

Systemic corticosteroids are the main drugs used in the treatment of PV. Mild localized lesions of the oral mucous membrane pemphigus with low titers of circulating autoantibodies may be controlled temporarily with topical corticosteroid rinses or gels.<sup>1,2</sup> Patients with multifocal disease or with severe disease require systemic corticosteroid treatment.<sup>1,5</sup>

Other vesiculobullous lesions such as ELP, mucous membrane pemphigoid (MMP), and erythema multiforme (EM) should be included in the differential diagnosis of PV.

Erythema multiforme is an immune disease mediated by deposition of immune complexes in the superficial microvasculature of the skin and the mucous membrane. Direct immunofluorescence demonstrates no staining for immunoglobulins in the epithelium. Blood vessels have IgM, complement, and fibrin in their vessel walls. Histologically, there is subepithelial vesicle formation and presence of infiltrates of lymphocytes and macrophages in the perivascular spaces and connective tissue papillae.<sup>6</sup>

In BMMP, there is presence of IgG, IgA, and complement along the basement membrane. The molecular targets are laminin-5 and bullous pemphigoid antigen 180. Histologically, there is subepithelial clefting and presence of lymphocytes in the lamina propria. There is no evidence of acantholysis.<sup>6</sup>

In ELP, direct immunofluorescence demonstrates the presence of fibrinogen in the basement membrane. Histologically, there is hyperkeratosis, basal layer degeneration with apoptotic keratinocytes, and a lymphophagocytic infiltrate at the epithelial connective tissue interface. Epithelium undergoes remodeling to form a saw-tooth rete ridge pattern and increased number of Langerhans cells.<sup>6</sup> Direct immunofluorescence is not pathognomonic in cases of EM or ELP but can be helpful in excluding these possibilities.

The diagnosis of the vesiculobullous disease is based on clinical and histopathologic evaluation as well as the performance of specific laboratory tests such as direct and indirect immunofluorescence.

### Conclusion

In summary, pemphigus vulgaris is a serious, potentially life-threatening disease that may initially appear in the oral cavity. The oral health care practitioner should be aware of the clinical manifestations and laboratory procedures involved in the diagnosis of pemphigus vulgaris. ■

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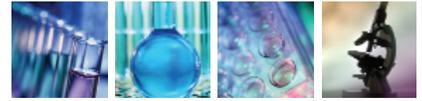
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## HYPERCEMENTOSIS

**H**YPERCEMENTOSIS MAY PRESENT SECONDARY TO either local factors or systemic disorders, but is typically classified as idiopathic. This condition is characterized by an excessive, nonneoplastic deposition of radicular cementum, and may involve a single tooth, several teeth, or the entire dentition.<sup>1</sup> In many instances, hypercementosis affects the premolar teeth and presents in a bilaterally symmetric distribution. Radiographically, hypercementosis is characterized by an overgrowth of cementum contiguous with normal radicular cementum and contained within the boundaries of the periodontal ligament and lamina dura.

When associated with local factors, hypercementosis typically involves only the tooth or teeth associated with the inciting agent. Local factors purported to cause hypercementosis include pulpitis and pulpal necrosis, parafunctional occlusal trauma, and lack of functional opposition (hypercementosis of impacted teeth).<sup>1,2</sup>

While some generalized increase in cementum is frequently noted with age, excessive production of cementum with a generalized distribution is noted in a number of systemic conditions, including toxic goiter, acromegaly, calcinosis, arthritis, and Paget's disease. Distinct from other conditions causing hypercementosis, patients suffering from Paget's disease frequently show loss of periodontal ligament space and lamina dura on radiographic examination, in addition to elevated levels of serum alkaline phosphatase. In some instances, young patients with generalized hypercementosis and familial clustering have been reported, suggesting hereditary factors. Although hypercementosis has been described with increased frequency in patients with a history of rheumatic fever, the relationship between the two is unclear.<sup>3</sup>

Once hypercementosis is diagnosed, an effort should be made to identify and remove local causative agents and rule out the presence of systemic disorders such as Paget's disease in the appropriate clinical context. While no treat-

ment is indicated for hypercementosis, an effort should be made to encourage optimal oral hygiene to avoid complications associated with the extraction of such teeth. ■

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**Figure 1. Generalized hypercementosis in an adult patient with a history of arthritis since childhood.**

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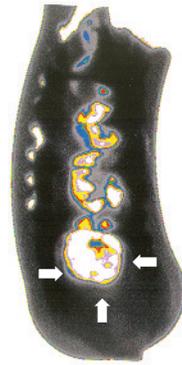
# CLINICAL CASE STUDY

**PHILIP MILLSTEIN, DMD, MS**

*Dr. Millstein is a prosthodontist with a practice based in Cambridge. He is chair of the Middlesex District and a former MDS Trustee.*

## WEAR, TEAR, AND REPAIR

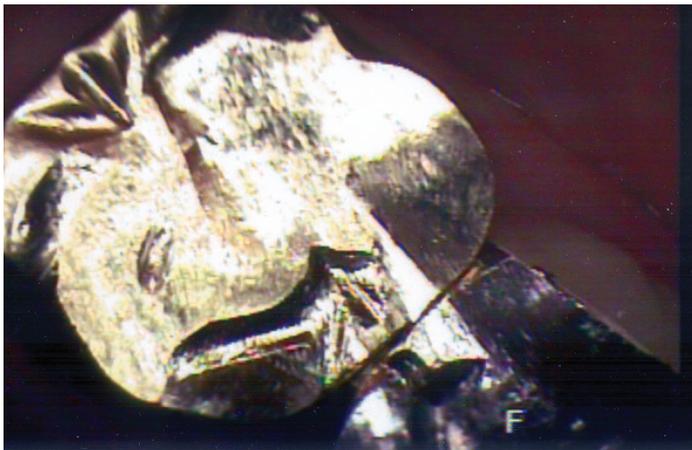
**C**ORONAL WEAR IS OFTEN ASSOCIATED WITH overcontouring of restorations, along with wear of dissimilar materials. It may be most evident in second molar restorations where the interocclusal space is reduced. There is often increased torque of the jaw in this reduced area of closure. Figure 1 represents a maxillary left second molar restoration that has been worn flat. The opposing restoration, Figure 2, is an overly contoured mandibular second molar restored with a porcelain-to-metal crown. The exposed roughened surfaces of both restorations are clearly visible along with their outright bulk in contour.



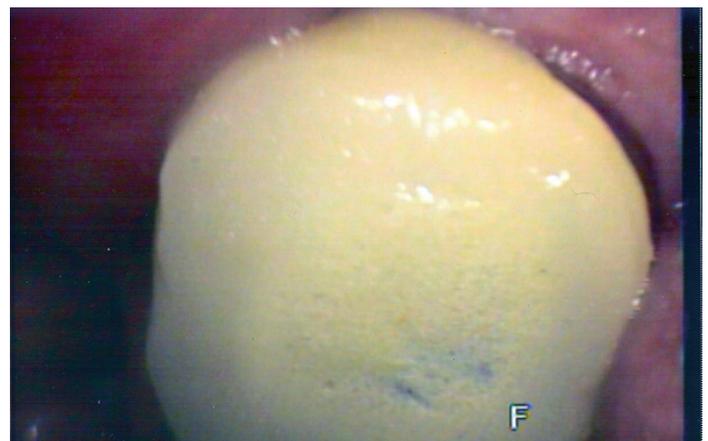
**Figure 3. Occlusogram of opposing molars in occlusion. Arrows depict areas of wear.**

Figure 3 is an occlusogram, which is made by recording the interocclusal position in closure using a silicone impression material in a triple tray. The recording is placed on a scanner and a photograph is taken. The white area depicts the extreme wear that is the result of the abraded porcelain on the opposing softer gold. Note that there is little tooth structure that has not been worn away.

Prevention or minimization of damage may be assumed with smaller crowns that are made of the same material. For a second molar area, gold against gold would seem to be more harmonious in function. The use of a biteguard in such cases is also suggested. ■



**Figure 1. Severely worn maxillary molar. Notice the striations caused by the opposing ground ceramic surface.**



**Figure 2. A flat ground ceramic restoration in service.**

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MDS Spring Courses.....	40, 41
New Mexico Dental Association.....	48

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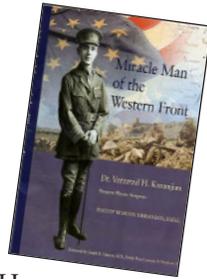


**NORMAN BECKER, DDS, EDITOR EMERITUS**

## MIRACLE MAN OF THE WESTERN FRONT

**H. MARTIN DERANIAN, DDS**

*Chandler House Press*



Our war hero is a dentist, Dr. Varaztad H. Kazanjian. In this biography of the “world’s most famous plastic surgeon,” Dr. H. Martin Deranian (a member of the MDS History & Library Information Services Committee) demonstrates his love of tradition as well as his love for his profession.

Dr. Deranian spent years with medical archives and in interviewing Dr. Kazanjian’s relatives, friends, and colleagues while compiling the material for this book. The biography traces the history of Dr. Kazanjian, a young man who fled from the massacres in Ottoman Armenia and immigrated to Worcester, Massachusetts. Dr. Kazanjian’s desire for knowledge caused him to move to Boston, enroll at English High School (“I was a man and at first felt embarrassed when I saw the children who were my classmates, but I soon said ‘What of it?’ The main reason is to improve my English.”) This attitude and hard work gained him admission to the dental school of Harvard University on September 24, 1902.

In addition to the history of Dr. Kazanjian, the history of dentistry of that era is well documented through the author’s diligence for accuracy. Dr. Deranian’s knowledge as a historian of dentistry earned him the Hayden-Harris Award presented by the American Academy of the History of Dentistry. We knew of his talent when he wrote the *History of the Massachusetts Dental Society* during our Centennial celebration, and he has taken this skill and applied it to the life of the man credited with forever changing the face of plastic surgery. Dr. Kazanjian’s interesting life as told through the author’s easy writing style results in a book that reads like a novel and not a history book.

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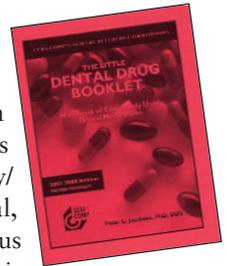
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partners. Of more significance, however, were samples of several of their publications. Ohio-based Lexi-Comp provides clinicians with databases on drug information, drug interactions, and clinical reference content.

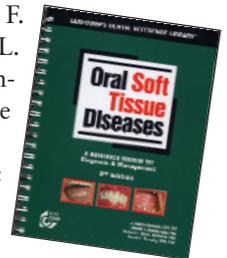
*The Little Dental Drug Booklet* (Peter L. Jacobsen, author) is a pocket-sized reference to the drugs most commonly used in dental practice. The 82-page booklet contains information about prescription writing, anxiety/sedation, pain control, and bacterial, fungal, and viral infections. It includes miscellaneous information about such subjects as dentin sensitivity, anticaries agents, tooth whitening, periodontal problems, and saliva dysfunction. The fact that the prophylactic antibiotic coverage was updated as of May 2007 indicates how current the publishers are with their material.



*Drug Information Handbook for Dentistry* (13th ed., Richard I. Wynn, Timothy F. Meiller, and Harold L. Crossley, authors) has information about commonly prescribed medications. This reference lists, in the form of monographs, dental-specific information for thousands of medications and the most common herbs and dietary supplements. It includes local anesthetic/vasoconstrictor precautions and effects on dental treatments as well as dental comments.

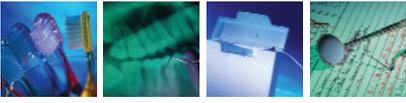
With *Oral Soft Tissue Diseases* (3rd ed.), authors J. Robert Newland, Timothy F. Meiller, Richard L. Wynn, and Harold L. Crossley have designed a quick reference manual to help clinicians recognize and manage oral soft tissue disease.

The manual is divided into seven specific diagnostic categories. Each lesion is illustrated with one or more color photographs to help recognize the clinical features. The authors have included a section of drug monographs and sample prescriptions, as well as a section related to special topics such as the treatment of oral mucosal lesions associated with chemotherapy and chronic dry mouth. Each monograph lists the etiology, visual clues, useful clinical information, and differential diagnosis, as well as treatment recommendations and follow-up care.



With *Oral Hard Tissue Diseases* (2nd ed.), J. Robert Newland designed this textbook to present radiographic features of intraosseous lesions discovered on dental radiographs. Newland divided the manual into 11 sections, each devoted to a specific diagnosis category. Visually cued with high-quality radiographs, each lesion is presented with its etiology, typical radiographic features, differential diagnosis, and clinical significance. ■





## ART OF DENTISTRY

### ERIC K. CURTIS, DDS, MAGD, ELS

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## SYMPATHY PAIN

“DAMON,” I SAID TO MY OLD FRIEND AND DENTAL SCHOOL classmate, now a Tucson periodontist, “I think I need a graft.”

“Pull down your lip,” Damon ordered. He briefly studied the narrow, pink scoop of marginal tissue hugging my lower canines, a veritable receding hairline of the gums. He glanced over the watery expanse of mucosa below, and then scowled. “You need some skin.” That was that. After almost two decades of cutting on patients, I became a cut patient myself.

“Illness,” Susan Sontag wrote in her introduction to *Illness as Metaphor*, “is the night-side of life, a more onerous citizenship. Everyone who is born holds dual citizenship, in the kingdom of the well and in the kingdom of the sick. Although we all prefer to use only the good passport, sooner or later each of us is obliged, at least for a spell, to identify ourselves as citizens of that other place.”

And what do we learn, as doctors, when we go traveling to the night-side?

Do we learn sympathy? Entering the kingdom of, if not exactly the sick then, at least technically anyway, the diseased and disfigured, I slid into the seat on the appointed day. I crossed my ankles and interlocked my fingers over my stomach. Sympathy is pity. It's condolence. Folklore describes sympathy pain in terms of the “married man's toothache,” a phenomenon that supposedly lasts from the moment a husband learns his wife is pregnant to the day she delivers. “You feeling all right?” Damon asked. I nodded. “You'll be sore later,” he said. Anticipating surgery didn't make me feel sorry for my patients.

Do we learn empathy, then, in that other place, in the patient's place on the other side of the armrest? I opened my mouth and waited. The overhead light felt sharp and cold, flashing out from its parabolic reflector. The lidocaine bit my lip, then palate, burning warmly, sweetly, and congealed to gauzy thickness.

I remember a *Life* magazine photo from the 1960s showing a surgeon performing an appendectomy on himself. He had told the reporter, “I wanted to know what it feels like to be a patient.” Empathy is identifying with someone else's experience. Martin Luther King Jr. wrote, “Pity is feeling sorry *for* someone; empathy is feeling sorry *with* someone.”

Pop culture teaches that such humanity springs from suffering. In the movie *The Doctor*, actor William Hurt plays an emotionally distant physician who learns empathy for his patients after he falls ill himself.

Damon rested his fingers on my lower centrals. He drew a line down my vestibule and I received a distant pressure. I imagined a twelve blade unzipping, cell by cell, the integrity of my integument.

Do we learn compassion from pain? Damon's assistant Linda dipped a steel suction tip past his gloves. It met my pooling wetness with a slurp. The *Oxford English Dictionary* roots compassion in grief and sorrow. Yet funeral directors say they can't grieve with every family. Professional focus follows detachment, and so doctors learn to strain out distracting emotion through a meshwork of technical terms. “The patient experienced syncope,” we say, not “Mary Ellen fainted dead away.”

Novelists have long known, in fact, that too much compassion can be paralyzing. “He sweated . . . to be forced to torture her,” Frank Norris wrote in 1899 of his fictional San Francisco dentist in *McTeague*. The day after my procedure, carrying a silent mouthful of sutures, I did actually feel a pang when I went to place some myself. Compassion didn't make me tie better knots.

There was a push, a pinch, a smudge of blood on latex flashing past my peripheral vision. “Mmm, filet of Eric,” Damon murmured as he lifted away the first of two rooftop donor strips.

### The Allure of Schadenfreude

Does the night-side teach us not to laugh? There is a word for taking pleasure in the misfortune of others—but not in English. *Schadenfreude* is such a guilty pleasure that it hides behind a German handle. Yet schadenfreude is the reason we laughed when Larry bonked Moe on the head, why we laugh when Sandra Bullock, funny as the slovenly FBI agent undercover at a beauty pageant in the movie *Miss Congeniality*, falls down in high heels. It's also why so many people long to see Osama bin Laden's head on a pike. Schadenfreude is the basis of both much of our sense of humor and our sense of righteousness.

When I saw Damon two weeks later, I was surprised at how quickly I wanted to describe the details of my odyssey. I told him which day the skin started sloughing, and how long I wore the stent. I promptly reported that the strips of graft felt like pieces of half-melted gummy bear caught in my lip. I wanted him to be interested, as if he hadn't seen it all a thousand dreary times before. He smiled at my enthusiasm. “Looks all right,” he said.

On that brief night-side of my mouth, I learned I didn't really need the pointy-end experience of a patient to cultivate caring as a dentist. And I'll never feel defensive again when my endodontic patients ask, “How many root canals have you had?”

The basis of caring doesn't seem to be sympathy, empathy, compassion, or even earnestness, but simply interest. And interest is enough. ■