Who Will Provide Care for Adults with Special Needs?
LEVELING THE PLAYING FIELD

We are fortunate that organized dentistry is vigilant and proactive regarding the many issues confronting our profession. One of the areas of concern that bears watching is our relationship with the insurance industry.

Recently, the Massachusetts Dental Society petitioned successfully to the State Insurance Commissioner to eliminate the 5 percent discount by Delta Dental and to change the methodology by which Delta caps the maximum allowable fees. This will have a positive effect on the practice of dentistry. This success was the result of nearly five years of study and efforts by a task force set up by the MDS House of Delegates in 2004. The task was cumbersome, but it is certainly in dentistry’s best interest to be cognizant and monitor the actions of insurance companies.

The insurance industry plays an important role in improving the availability of dental services to the public. Many people would not seek care if they did not have the assistance of dental insurance. But make no mistake about it—dental insurers are in business to make money, not to provide care.

Another example of organized dentistry’s vigilant efforts to protect its members’ interests is in the area of antitrust legislation. Nearly 65 years ago, the insurance industry (including health insurance) successfully lobbied for an exemption from the federal antitrust laws. This exemption is the McCarren-Ferguson Act, and it has far-reaching, anticompetitive, industry-wide effects. There are ramifications from this act in that dentists, their patients, and the public health are all negatively affected. Essentially, McCarren-Ferguson diminished competition among dental insurers. Antitrust laws forbid dentists from discussing fees and from collaborating in anticompetitive practices, thus ensuring healthy competition. It is the American Dental Association’s contention that insurance companies should also not be exempted from these antitrust laws, and a change would allow health care consumers to benefit from increased market competition.

There are strong allegations of conflicts of interest in the way different and competing insurance companies share data when they set usual, customary, and reasonable reimbursement rates for out-of-plan health care providers. This sharing of data is so anticompetitive that consumers are not likely to see much innovation and variety in the marketplace. If the insurance companies set rates and then design coverage according to antitrust laws, they would have to compete for purchasers of group policies. This competition could have the effect of keeping rates lower and improving the benefits offered. As a further result, purchasing policies would be more attractive to groups, and thus more consumers would have insured care available. If a higher number of consumers were to have plans with decent provisions for care, more actual dental care would be sought, thereby benefiting the dental providers as well as the public.

By advocating for changes that will level the playing field, the ADA is being proactive and is protecting the public against the unregulated practices of a very powerful lobby, the insurance industry.

Meanwhile, the United States House of Representatives is currently considering legislation in HR1583 to repeal the 65-year-old McCarren-Ferguson Act. If passed, the repeal would benefit our profession and our patients—a definite win-win situation.

Contact your congressman and let your voice be heard.

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The Journal of the Massachusetts Dental Society

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Journal of the Massachusetts Dental Society
You’ve probably heard the saying “What you don’t know can’t hurt you,” but when it comes to your finances, ignorance is not necessarily bliss. It’s easy to make bad financial decisions when you lack sufficient information or you are misinformed. By the time you realize your mistake, it’s usually too late to correct it. Here are several common mistakes that can be avoided with just a little bit of forethought.

Naming the Wrong Insurance Beneficiary
Life insurance has many benefits. Among them is the fact that death benefits are generally paid directly to the beneficiary you name in the policy without passing through probate. But what happens if the beneficiary you name is unable to accept the death benefit, because he or she is a minor, deceased, or incompetent? In these circumstances, unless you’ve named an alternate beneficiary, the life insurance proceeds will be subject to all of the expenses and delays associated with settling an estate through probate.

What can you do before it’s too late? Review your life insurance beneficiary designations at least annually to be sure the proceeds will pass to the proper beneficiary without the involvement of probate. Also, consider adding at least one contingent or alternate beneficiary in case the primary beneficiary is unable to receive the proceeds.

Selecting the Wrong Pension Option
If you’re lucky enough to have an employer-sponsored pension for your retirement, the distribution choices you make can’t be changed, regardless of whether your circumstances change. Before making your choice, get all of your plan’s options from the plan administrator and review them with a financial professional who can help you crunch the numbers. Estimate your retirement income needs, then determine what the best strategy is for you and your family.

What can you do before it’s too late? Review your policy at least annually and make sure the face amount is enough to cover all of the costs to rebuild your home.

Owning Assets Jointly
Owning assets jointly often can be a good strategy to avoid probate or minimize estate taxes. However, this form of asset ownership also has disadvantages. The joint owner has equal rights to the jointly owned asset, meaning he or she can withdraw from a joint bank or brokerage account or sell his or her interest in the asset without your consent. In addition, adding someone’s name to an asset may be considered a gift, subject to possible gift taxes. And owning assets jointly exposes those assets to the creditors of your joint owner. Finally, with respect to long-term care planning and Medicaid qualification, adding a joint owner can negatively affect your Medicaid eligibility.

What can you do before it’s too late? Consider the ramifications of joint ownership carefully before implementing this strategy. If your intent is to leave the asset to the joint owner, alternatives such as payable on death accounts, trust designations, or life estates may accomplish your goal and protect your interest in the asset at the same time.

Underinsured Homes
Imagine this scenario: You just suffered through a terrible fire that destroyed your home and most of its contents. You get an estimate on the cost to rebuild your home and file a claim with your homeowner’s insurance carrier. To your shock, you find that they are not going to cover the entire cost to rebuild; you thought your policy covered the full replacement cost of your home. However, the policy actually provides extended replacement cost, which offers up to 120 percent of the policy’s face amount—not enough to cover all of the costs to rebuild your home.

What can you do before it’s too late? Review your policy at least annually and make sure the face amount is enough to cover the cost to rebuild your home should the unthinkable occur. That means you need to know the approximate cost to rebuild, including any additions and improvements you made to the home. Also, take into consideration increasing costs of materials and labor.

Other Common Mistakes
• Failing to provide for financial loss due to a non-work-related disability
• Miscalculating how much life insurance you need
• Owning too much stock in your employer-sponsored retirement plan
• Underestimating how long your retirement may last
• Overestimating the annual rate of return you’ll earn on your investments
• Trying to save for your children’s college education at the expense of saving for your retirement
We have all experienced the increases in health insurance premiums. Since the year 2000, health insurance renewal premiums have soared over 100 percent or more. This has put a real strain on businesses and individuals. The end result? Employers have been reducing benefits, shifting more costs to the employees, or, in some cases, dropping health insurance coverage entirely. To date, only a few of our nearly 2,000 clients have dropped their insurance plans altogether, but the financial strains of our economy have forced companies to take a hard look at the future of their health insurance plans.

In or around 2000, most of the group insurance plans were co-pay-based. The average monthly premium was in the mid-$200 level for an individual, and the medical trend (the percentage of increase in medical costs from one year to the next) was under control in single digits. Now in 2009, the average individual plan is in excess of $450 per month and the medical trend is in double digits. What have those companies faced with steep increases done to stem the rising insurance premium tide? Besides the three results mentioned above, many companies (more than 40 percent of our book of business and rapidly increasing) have shifted down to a deductible-based consumer-directed health plan (CDHP).

Why the shift to CDHPs? To many, CDHPs represent the insurance industry’s best (and some say last) chance to control costs and slow down the increases for the insurance plans. CDHPs also raise the consumer’s awareness of the real costs of care. By being aware of these costs and taking a more involved role in their health care decisions, the hope is that consumers will be more cost-effective in their health care spending. With CDHPs, there is a greater potential for consumers to dip into their own pockets in the form of deductibles. Therefore, consumers have an incentive to be educated and efficient utilizers of health care. So if consumers have to pay more, will it force them to be better health care consumers? The insurance industry is banking on it.

CDHP plans with deductibles of $500 or more include a preventive component as part of the insurance plan and access to information-based tools to aid consumers in their health care decision making. Another component is the deductible funding by the employee, the employer, or a combination. CDHPs work best with some percentage of deductible funding by the employer.

Switching to a CDHP is a philosophical change from the co-pay-based norm. For nearly 40 years, most health insurance plans were co-pay-based, with few to no deductibles. As premium prices have risen, so have the amount and quality of deductible-based plans. People are used to paying a $15 co-pay and not having to worry about anything else. Now, if a doctor orders an X-ray or MRI, the consumer will be responsible to pay some or all services as they may apply to the deductible. This represents a major change from the norm. You and your staff will have to be educated and informed as to these changes. The carrier is requiring you to be more involved in the process. If you don’t pay attention, you may be forced to pay a large bill.

So how do you make these changes? You need to have the tools to get educated. This is where my biggest criticism of the CDHP migration lies. There are still many gaps in the information provided from insurance companies and providers to help educate consumers. Why? Among many of the reasons, there are contractual issues. Optimally, there will be transparency in price and quality of plans. But for now, it is a work in progress and, it should be noted, this is standing in the way of more people signing up for CDHPs.

Health reimbursement arrangements (HRAs), health savings accounts (HSAs), and flexible spending accounts (FSAs) also play a large part in CDHP plans. HRAs, HSAs, and FSAs all are vehicles used to fund CDHP deductibles. Some are “use it or lose it,” some allow for carryover provisions, and some provide protection to businesses. All have pros and cons for each and every business involved, all of which must be considered in your health insurance analysis.

A few years ago, I wrote that CDHPs were on the way. Well, they are here. These innovative plans require more consumer involvement, but they also represent lower premiums, as well. As President Barack Obama continues to push for national health care reform, CDHPs are a part of all of the proposals being considered. It is time to look into these plan types for now and for the future.

If you would like to learn more about CDHPs, contact MDS Insurance Services, Inc., at (800) 821-6033 or email us at mdsis@mdsis.org.
The MDS’s seventh annual Beacon Hill Day was held on Wednesday, May 20, 2009, and more than 80 dentists and dental students traveled to the State House to spend the day discussing oral health issues with their elected officials. The day began with a Morning Briefing Session at Suffolk University Law School sponsored by the MDS-PAC/MDS-People’s Committee. This important addition to the Beacon Hill Day Program allowed participants to learn more about the MDS legislative agenda and effective techniques for communicating with legislators.

The group then walked to the State House for a luncheon with legislators. Dr. David Samuels, MDS president, presented Representative John Scibak and Senator Harriette Chandler with certificates of appreciation for their dedication to improving the oral health of the citizens of the Commonwealth and for their commitment to working with the members of the Massachusetts Dental Society to achieve that goal. Lieutenant Governor Tim Murray delivered the keynote address to attendees, encouraging members to stay active in grassroots efforts.

The participants spoke with legislators and aides about the Society’s active legislative agenda for the 2009–2010 session, including H.444–An Act Relative to Pupil Dental Health, which requires that all public school students, prior to entering kindergarten, show certification that they have received a dental exam within the past year. The MDS is also seeking passage of S.891–An Act Relative to Volunteer Dental Licenses, which would allow retired dentists to donate their time and expertise to a free-care dental program or clinic, and S.805–An Act Relative to Oral Injuries, which calls for the Department of Public Health to conduct a comprehensive study of oral injuries in school sports. In addition, S.448 & H.939–An Act Relative to Anesthesia Coverage for Children Hospitalized for Dental Treatment would provide insurance coverage for children receiving dental treatment under anesthesia. For more information about these bills, please log on to www.massdental.org/legislation.
The 2009 House of Delegates was held Friday, May 15, 2009, at the Burlington Marriott with approximately 160 MDS member delegates, representing all 13 districts, in attendance. Speaker of the House Dr. Thomas E. Warren presided over his second Annual Session, where nine resolutions were passed, including two regarding redistricting the Massachusetts Dental Society. (For a complete list of the 2009 Resolutions, please visit www.massdental.org/hod or see the July-August 2009 issue of MDS CONNECTION.)

The House of Delegates inducted a new slate of MDS officers for the 2009–2010 term: David Samuels, DMD, a periodontist based in Andover, was sworn in as MDS president; John Fisher, DDS, a general dentist in Salem, was named president-elect; Anthony (Tom) Borgia, DDS, an endodontist in Sandwich and former trustee of the Cape Cod District, was elected vice president; and Michel Jussaume, DDS, a general dentist in Westport and former trustee of the Southeastern District, was sworn in as assistant treasurer. Additionally, four new trustees joined the Board of Trustees: Daniel Maloney, DDS (Cape Cod District); N. Peter Hjorth, DMD (North Shore District); Raymond Martin, DDS (Southeastern); and Edward J. Welch, DDS (Valley District). Dr. Maloney resurges the Board four years after he completed his last term as secretary.

This Annual Session also welcomed four new Guest Board Members: Mario Abdennour, DMD; Jo Ann Foley, DDS; Neela Gandhi, DMD; and Joy Kasparian-Fedemic, DMD. The Guest Board Member Program was created in 2006 to expand the diversity and multicultural demographics of the Board to better reflect the membership of the Society and to encourage involvement in the MDS and organized dentistry. Each governing year, four MDS members are selected to attend Board of Trustee meetings and participate in discussions in a nonvoting capacity. (For more on the new MDS Trustees and Guest Board Members, visit www.massdental.org/leadership/guestboard or see the July-August 2009 MDS CONNECTION.)

The two resolutions regarding redistricting—8-09, Amendment to the MDS Bylaws to modify “Chapter II, Component Societies, Section 30,” Related to Redistricting; and 9-09, Creation of a District Reorganization Task Force to Study the Current District Structure in Massachusetts and Report Back to the 2010 House of Delegates—were the center of much of the day’s focus and a main topic of discussion, as delegates from across the state argued passionately in favor of or against the resolutions. Resolution 8-09 generated the most discussion both in Reference Committee and on the House floor, with members from the Metropolitan District voicing their opposition to the proposal en masse. After a tight vote that required a recount, the resolution was passed by a margin of 80 in favor to 38 opposed, a number slightly more than the two-thirds vote required.

This year’s Annual Session featured another “mega” discussion, this time around the topic of mid-level providers. Dr. Jamie Sledd, immediate past president to the Minnesota Dental Association (MDA) and chair of the Oral Health Practitioner Task Force for the MDA, spoke at length about how mid-level providers can become a valuable part of the dental team. Minnesota supports the concept of the mid-level provider, on the basis that only the dentist should be allowed to examine, diagnose, and treatment plan for a patient. As a member of the Minnesota delegation that visited dental therapy programs in Canada, New Zealand, and the United Kingdom, Dr. Sledd discussed how mid-level providers are utilized in those countries.

Nearly two dozen of the 50-Year Members attended a luncheon in their honor at the House of Delegates.

Dr. Milton Glicksman (right) passes the gavel on to newly inducted MDS President Dr. David Samuels.


Dr. David Samuels makes his presidential address.

MDS 50-Year Members

Dr. Robert Faiella, ADA First District Trustee, presents outgoing MDS President Dr. Milton Glicksman with a plaque recognizing him for his term.

Dr. Jamie Sledd, immediate past president of the Minnesota Dental Association, speaks on the mega-discussion topic of mid-level providers.

Nearly two dozen of the 50-Year Members attended a luncheon in their honor at the House of Delegates.
It was in the early 1990s that Eunice Shriver and her brother, Senator Ted Kennedy of Massachusetts, became increasingly aware of the inability to find a dentist who would provide restorative services for their sister, Rose Marie (known as Rosemary), an adult with an intellectual disability. A previous review by a hospital-based dental team had suggested the extraction of all of her remaining teeth—an all-too-common dental plan for individuals with intellectual disabilities. The plan was unacceptable. Finances were not a concern; it was a matter of locating a practitioner capable of and willing to provide restorative care.

A Historic Dental Appointment
It was at this point that Rosemary, then in her mid-70s, was referred to one of the coauthors of this article, Dr. Steven P. Perlman, a private practicing pediatric dentist located more than a thousand miles away, who emphasized services for individuals with special needs. It was especially interesting to the Shriver Kennedy family that pediatric dentists were the dental professionals who most often were called upon to provide the care, not only for youngsters, but for adults with special health care needs. Rosemary received the needed restorative treatment under general anesthesia because of the complexity of care; not one tooth was extracted.

A later meeting between Eunice and Sargent Shriver, Eunice’s husband, and Dr. Perlman introduced the Shriver-Kennedy family to the realities of the widespread dental and general health needs of children and adults with intellectual disabilities, the problems of accessing care, and finding clinicians who had received training and were willing to provide care for an adult with special needs.

Special Olympics and the Healthy Athletes Program
It was the dental care of a 74-year-old with an intellectual disability by a pediatric dentist that served as the catalyst to broaden the Special Olympics to include the Healthy Athletes initiative. The Healthy Athletes Program was designed to help Special Olympics athletes improve their health and fitness, leading to an enhanced sports experience and improved well-being. The initiative now includes: Fit Feet, FUNfitness, Healthy Hearing, Health Promotion, Opening Eyes, Medfest, and Special Smiles. Volunteer health care professionals and students are trained to provide the screenings in an effort to educate the professional community about the needs and abilities of persons with intellectual and developmental disabilities. The Special Olympics Special Smiles Program provides oral health evaluations, fabrication of mouthguards, oral health education, and referrals made to community dentists. The need for dental care, a major national and international effort is carried out to encourage dental practitioners to provide care to youngsters and adults with special needs.

Increasing Numbers and Living Arrangements
The reality is that the number of adults with disabilities has increased as a result of higher initial survival rates, improved medical management resulting in longer life expectancies, and the increased likelihood of acquiring chronic disabilities later in life. It is now estimated that 10 percent of the population have a severe disability.1

By the beginning of this decade, more adults with disabilities (11 percent of all public school children) were receiving an education under federal legislation (Public Law 94-142—Individuals with Disabilities Education Act, or IDEA). This 1975 legislation laid out the rights of children with disabilities to attend public schools, receive free services designed to meet their unique needs, and learn in regular education classrooms with nondisabled children to the greatest extent possible. It also authorized federal funds to cover some of the costs of these special services. Each year, more than 100,000 of these children graduate into adulthood.2

Evolving residential requirements for individuals with mild and moderate intellectual disabilities and related developmental disabilities (ID/DD) increasingly place these persons of all ages in community settings. Changing social policies, favorable legislation for individuals with disabilities, and class-action legal decisions delineating the rights of individuals with ID/DD have led to deinstitutionalization (i.e., the “mainstreaming” establishment of community-oriented group homes, family and household settings, apartment-style residential settings) and the closure of many large, state-run facilities.

Oral Health Needs
Deinstitutionalization has been related to a worsening of oral health status as many individuals with special health needs lose their institutional-based dental providers and have become dependent on community-based providers. What’s more, preliminary data from the National Medical Expenditure Survey show that lower income people with disabilities have more dental disease, more missing teeth, and more difficulty obtaining dental care than other members of the general population.3

Prior to deinstitutionalization, pediatric dental specialists (members of an age-defined specialty), in cooperation with general practitioners, provided much of the needed services for youngsters with disabilities whose families in the general community. But many of these patients (as happened with Rosemary Kennedy) were “aging out” of the system and were generally served by pediatric dentists. As a consequence of the limited availability of general practitioners providing services to adults with special needs, some pediatric dentists continue to provide care for older patients.

Results from the National Health Interview Survey indicate that the unmet dental care is far higher for children with special needs than for their peers without such needs. According to the survey, 7.3 percent of all parents report that their children have unmet dental treatment needs compared to 24 percent of parents of children with special needs.4

A continuing series of federal agency studies confirm that oral diseases remain highly prevalent and highly variable among various population groups: “racial/ethnic minorities, those with lower incomes, lower educational level, and current smokers across age groups have larger unmet dental needs compared with their counterparts.”5 There are also dental utilization reports for young children and frail elderly, low-income subpopulations at all ages (despite comprehensive Medicaid coverage for children under age 21), people with limited education, and immigrant/migrant/homeless populations.6 US residents reported a lack of affordability 1.6 times more often for dental services than for medical care. Additionally, US residents are less than 40 percent as likely to have dental insurance as medical insurance.7

The reality is that the difficulties faced in securing needed dental services for Rosemary Kennedy in the early 1990s are not that different in this decade—though there are increased numbers of youngsters and adults with special health care needs.

Why a Reluctance to Provide Dental Care?
Education For many studies of graduating dental students indicate limited preparation to provide services for individuals with special needs.
cial health care needs. By the end of the 1990s and into the present decade, more than half of the U.S. dental schools provided less than five hours of classroom presentations and about three-quarters of the schools provided 0–5 percent of treatment time for patients with special needs.

In a recent study, half of the students reported no clinical training in the care of patients with special needs. Only 15 percent reported little to no preparation for care of these patients. Similar results were reported for the education of dental hygienist students. The assumption of responsibility for adults with special needs by pediatric dentists has resulted in controversy over the appropriate age range of patients to be cared for by pediatric dentists, particularly given these dentists’ limited expertise for adult services.

There is a fundamental difference between the medical and dental training that exists at both the pre- and postdoctoral levels in the way that dental and medical trainees engage people as patients. Medical students and trainees routinely observe and experience patients from the pharmacotherapeutic/sociobehavioral perspectives of medical care, as well as from the interventionist/objective stance of dental care. In contrast, dental students tend to focus exclusively on surgical treatment to the point that the patient’s oral structures, rather than the patient, become the center of their attention. In addition, continuing professional dental education rarely provides additional training regarding vulnerable and special-needs populations.

**References**


Anesthesia Morbidity and Mortality Experience Among Massachusetts Oral and Maxillofacial Surgeons

EDWARD M. D’ERAMO, DMD
WILLIAM J. BONTEMPI, DMD, MD
JOANNE B. HOWARD

Dr. D’Eramo is an oral and maxillofacial surgeon with a private practice in Revere and associate clinical professor of oral and maxillofacial surgery at Tufts University School of Dental Medicine; Dr. Bontempi is an oral and maxillofacial surgeon with practices in Westfield and Longmeadow; and Ms. Howard is the executive secretary of the Massachusetts Society of Oral and Maxillofacial Surgeons.


Purpose: To document the incidence of specific complications and the mortality rate for office anesthesia administered by fully qualified oral and maxillofacial surgeons in the state of Massachusetts. Materials and Methods: A survey questionnaire was mailed to the 169 active members of the Massachusetts Society of Oral and Maxillofacial Surgeons. Using a specific method for follow-up, a 100 percent response was obtained.

Results: The frequency of office anesthetic complications occurring in 2004 was consistent with our previous studies. There was one office death, for a mortality rate of 1:1,733,055. The incidence of other specific anesthetic-related complications is documented. Conclusion: From the data presented here, we conclude that outpatient anesthesia in the oral and maxillofacial surgery office continues to be a safe therapeutic modality.

A
nesthesia-related morbidity is a serious risk to oral and maxillofacial surgery patients receiving outpatient surgery. Unfortunately, there is little data to track the risks of outpatient anesthesia to offer as an appeasement for these concerns. The most recent and comprehensive review is the American Association of Oral and Maxillofacial Surgeons (AAOMS) anesthesia study published in 2003. In an insurance claims analysis, Deegan presented data that the mortality risk in the oral surgery office was 19 deaths in 14,206,923 anesthetics administered. Similar to the format of our study, in 1989 Lytle and Yoon presented data from the Southern California Society of Oral and Maxillofacial Surgeons from a five-year retrospective study of anesthesia-related mortality. In that article, there were no reports of anesthetics-related deaths based on a 100 percent response rate. In 1989, Lytle and Stamper published data from their 1988 survey of oral and maxillofacial anesthesiologists (OMSs) from Southern California spanning the 20 years from 1968 to 1988. The data from that study revealed seven deaths in over 4,700,000 anesthetics, for a mortality rate of 1:673,000.

In 1992, D’Eramo presented data collected from Massa-
chusetts OMSs from 1984 to 1989 that showed a mortality rate of approximately 1:1 million. A follow-up of this study, published in 1999, reported no deaths in 1,588,800 anesthetics. In 2003, D’Eramo, Bookless, and Howard published a third in-

Table 1. Anesthetic and Adjunctive Agents Used in 1989, 1994, 1999, and 2004

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<tr>
<td>Midazolam</td>
<td>48%</td>
<td>63%</td>
<td>71%</td>
<td>91%</td>
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<td>Nitrous Oxide</td>
<td>97%</td>
<td>88%</td>
<td>87%</td>
<td>90%</td>
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<td>Fentanyl</td>
<td>38%</td>
<td>48%</td>
<td>61%</td>
<td>74%</td>
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<td>Propofol</td>
<td>3%</td>
<td>8%</td>
<td>58%</td>
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<tr>
<td>Ketamine</td>
<td>7%</td>
<td>10%</td>
<td>26%</td>
<td>50%</td>
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<tr>
<td>Methohexitol</td>
<td>90%</td>
<td>79%</td>
<td>78%</td>
<td>46%</td>
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<tr>
<td>Diazepam</td>
<td>79%</td>
<td>69%</td>
<td>62%</td>
<td>36%</td>
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<tr>
<td>Glycopyrronium</td>
<td>7%</td>
<td>11%</td>
<td>19%</td>
<td>19%</td>
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<tr>
<td>Atropine</td>
<td>20%</td>
<td>22%</td>
<td>26%</td>
<td>17%</td>
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<tr>
<td>Nalbupine</td>
<td>0%</td>
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<td>Thiopental</td>
<td>1%</td>
<td>2%</td>
<td>2%</td>
<td>1%</td>
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<tr>
<td>Scopolamine</td>
<td>0.7%</td>
<td>1%</td>
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<td>0%</td>
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<tr>
<td>Pentobarbital</td>
<td>3%</td>
<td>1%</td>
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Percentage of respondents indicating anesthetic agent was used at least once per month in 1989, 1994, 1999, and 2004.

Agents are listed in the order of 2004 frequency.
Adverse event data is reported in Table 3 and represented graphically in Figures 2–4. As noted in previous studies, syncope in association with the administration of local anesthesia is the most frequent untoward event in the oral surgeon’s office. Of the 178,990 patients receiving local anesthesia, syncope was reported in 1,184 patients for a frequency of 1 in 151 patients. The syncopal events reported for patients included patients fainting either before or after the surgical procedure.

In our data, the most common anesthetic problem occurring with patients receiving general anesthesia or parenteral sedation is laryngospasm, occurring with a frequency of 1 in 833 patients. However, the incidence of this complication has decreased significantly in our 20-year series. Dysrhythmias requiring drug therapy continue to be an infrequent occurrence, with an incidence of 1 in 4,167 patients. Neck or nerve injury associated with positional changes during anesthesia was not observed in our 2004 data and has been very infrequently observed in our data from the preceding 19 years. Phlebitis occurring with general anesthesia or parenteral sedation has also decreased from our previous surveys, which may be because of the more common usage of midazolam versus diazepam (see Table 1). Malignant hyperthermia was not reported in our 2004 data, consistent with the findings of our previous surveys. The incidence of other untoward events and their probabilities are listed in Table 3.

Table 2. Local Anesthetics Used in 1989, 1994, 1999, and 2004

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<tbody>
<tr>
<td>Lidocaine with Epinephrine</td>
<td>89%</td>
<td>83%</td>
<td>85%</td>
<td>89%</td>
</tr>
<tr>
<td>Mepivacaine</td>
<td>69%</td>
<td>71%</td>
<td>72%</td>
<td>76%</td>
</tr>
<tr>
<td>Bupivacaine with Epinephrine</td>
<td>44%</td>
<td>55%</td>
<td>55%</td>
<td>64%</td>
</tr>
<tr>
<td>Lidocaine without Epinephrine</td>
<td>35%</td>
<td>25%</td>
<td>28%</td>
<td>23%</td>
</tr>
<tr>
<td>Prilocaine</td>
<td>18%</td>
<td>18%</td>
<td>20%</td>
<td>17%</td>
</tr>
<tr>
<td>Mepivacaine with Neosobefrine</td>
<td>20%</td>
<td>18%</td>
<td>17%</td>
<td>14%</td>
</tr>
</tbody>
</table>

Table 3. Adverse Events Categorized by Anesthetic Method Used

<table>
<thead>
<tr>
<th>Event</th>
<th>General Anesthesia (n = 75,487)</th>
<th>Parenteral Sedation &amp; Local Anesthesia (n = 53,697)</th>
<th>Nitrous Oxide Sedation &amp; Local Anesthesia (n = 36,576)</th>
<th>Local Anesthesia (n = 181,325)</th>
<th>No Anesthesia (n = 256,034)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syncope</td>
<td>299</td>
<td>160</td>
<td>81</td>
<td>1,184</td>
<td>161</td>
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<tr>
<td>Laryngospasm</td>
<td>97</td>
<td>58</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bronchospasm</td>
<td>23</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Allergic Reaction Requiring Drug Therapy</td>
<td>13</td>
<td>18</td>
<td>0</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Convulsion</td>
<td>5</td>
<td>19</td>
<td>6</td>
<td>18</td>
<td>1</td>
</tr>
<tr>
<td>Hypertension Requiring Drug Therapy</td>
<td>16</td>
<td>13</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Dysrhythmia Requiring Drug Therapy</td>
<td>19</td>
<td>26</td>
<td>0</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Neck or Nerve Injury Associated with Positional Changes During Anesthesia</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Phlebitis</td>
<td>41</td>
<td>41</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Intra-Arterial Injection of Medication</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Vomiting with Aspiration</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Aspiration of Tooth or Foreign Body</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Insulin Shock</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Diabetic Ketoacidosis</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Congestive Heart Failure</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
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<td>CVA</td>
<td>2</td>
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<tr>
<td>Malignant Hyperthermia</td>
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<td>0</td>
<td>0</td>
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<tr>
<td>Myocardial Infarction</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>Marfan Syndrome</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Figure 4. Percent Probability for Major Events During PS and GA

In our previous studies, when diabetic problems did occur, insulin shock was reported more frequently than diabetic ketoacidosis. Data from the preceding 19 years. Phlebitis occurring with general anesthesia or parenteral sedation has also decreased from our previous surveys, which may be because of the more common usage of midazolam versus diazepam (see Table 1). Malignant hyperthermia was not reported in our 2004 data, consistent with the findings of our previous surveys. The incidence of other untoward events and their probabilities are listed in Table 3.
After developing an anesthetic problem, oral surgical procedures can usually be stopped within seconds without significant adverse effect, and full attention directed to the management of the anesthetic problem.7 Using the OMSNIC study design as a benchmark for the reporting of data, our data collection is comparatively limited. Factors such as ASA classification, age, and the length of the surgical procedure were not measured in our study and thus could not be factored into our final analysis of the complications encountered. In fact, analysis of the data presented in many of the previously cited studies did not include assessment of ASA classification.

The ASA classification was first devised in 1941 through the efforts of Myer Skalad examining the effect of a patient’s perioperative condition on anesthetic outcomes.8 While the ASA classification provides a convenient framework to stratify patients in terms of anesthetic risk, it does not provide an iron-clad assurance of predictable patient outcomes. In our study and others, we were not able to determine anesthetic risk in the same manner, they noted that “the disproportionate number of patients in this sample who were at the extremes of age and with ASA classifications below I suggest that anesthesia risk may be increased in patients who fall outside the healthy, young adult category typically treated in the oral surgical/dental outpatient setting.”10

Conclusion
The clinical intent of our retrospective analysis is to provide dentists with a working knowledge of anesthetic complications to assist in the proper preoperative and perioperative management of patients. This premise is the essential ingredient in using our data for continuing quality improvement in the discipline of outpatient anesthesiology. The more information that can be collected regarding complications, the better equipped dentists will be in anticipating untoward outcomes.

An increasing number of oral surgeons are using newer and safer drug combinations. Reviewing our data from the past 20 years, we see a dramatic increase in the usage of midazolam, fentanyl, and propofol. Coincidentally, we have observed a significant decrease in the anesthetic complications of phlebitis, nausea, laryngospasm, and bronchospasm.

Outpatient anesthesia in the hands of qualified OMSs continues to be a very safe and effective therapeutic modality. Looking forward, other dental societies should consider similar reviews to augment currently published studies.

Table 4. 1980–2008 Comparative Mortality Rates for Dental Office Anesthesia

<table>
<thead>
<tr>
<th>Author</th>
<th>Year Published</th>
<th>Type of Anesthesia</th>
<th>Deaths/Patients</th>
<th>Approximate Mortality Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lytle and Yoon1</td>
<td>1980</td>
<td>General</td>
<td>0/1,285,000</td>
<td>0/1,285,000</td>
</tr>
<tr>
<td>Lytle and Stamper9</td>
<td>1989</td>
<td>General</td>
<td>7/74,000</td>
<td>1/10,720</td>
</tr>
<tr>
<td>D’Eramo5</td>
<td>1992</td>
<td>General, sedation, local</td>
<td>2/208,000</td>
<td>1/104,000</td>
</tr>
<tr>
<td>Niknah, Haas, and Soco11</td>
<td>1997</td>
<td>General, sedation</td>
<td>4/2,830,000</td>
<td>1/700,500</td>
</tr>
<tr>
<td>D’Eramo12</td>
<td>1999</td>
<td>General, sedation, local</td>
<td>0/1,588,365</td>
<td>0/1,588,365</td>
</tr>
<tr>
<td>Dregen13</td>
<td>2001</td>
<td>General</td>
<td>1/194,260,923</td>
<td>1/1,747,000</td>
</tr>
<tr>
<td>D’Eramo, Bookless, and Howard14</td>
<td>2003</td>
<td>General, sedation</td>
<td>7/276,010</td>
<td>1/38,533</td>
</tr>
<tr>
<td>Nix, Katonh, and D’Eramo15</td>
<td>2006</td>
<td>General, sedation</td>
<td>19/1,159,400</td>
<td>1/60,000</td>
</tr>
<tr>
<td>Data Currently Presented</td>
<td>2008</td>
<td>General</td>
<td>17/1,313,055</td>
<td>1/7,713,055</td>
</tr>
</tbody>
</table>

References
Case Report 1
A 15-year-old white female presented, complaining of a painful lesion on her tongue that had arisen suddenly. There was no recollection of trauma. Her history was within normal limits except for her taking a daily laxative medication for an intestinal problem. She has had recurrent aphthous stomatitis and bouts of oral candidiasis a few times in the past. She also wore an orthodontic retainer on an upper incisor. On a 10-point pain scale, with 10 being the worst, the patient said the pain level was a “3.” Examination revealed a 2 x 3 mm yellowish-white papule on the lateral posterior border of the tongue anterior to the foliate papillae (see Figure 1). A preliminary diagnosis of transient lingual papillitis was made. The lesion resolved in two days. The final diagnosis was transient lingual papillitis.

Case Report 2
A 63-year-old white female complained of a painful lesion on her tongue that was not present the night before. She could not recollect bringing herself. Her history was within normal limits except for her taking a daily laxative medication for an intestinal problem. She has had recurrent aphthous stomatitis and bouts of oral candidiasis a few times in the past. She also wore an orthodontic retainer on an upper incisor. On a 10-point pain scale, with 10 being the worst, the patient said the pain level was a “3.” Examination revealed a 2 x 3 mm yellowish-white papule on the lateral posterior border of the tongue anterior to the foliate papillae (see Figure 1). A preliminary diagnosis of transient lingual papillitis was made. The lesion resolved in two days. The final diagnosis was transient lingual papillitis.

Case Report 3
A 25-year-old white male dental student presented with a photograph of a condition that had occurred on his tongue. There was no recollection of trauma. Her history was within normal limits. Examination revealed numerous swollen, white fungiform papillae on the anterior and middle thirds of the dorsum of the tongue (see Figure 3). The history was within normal limits. The preliminary diagnosis was fungiform papillitis, possibly of viral origin. There was no treatment. The lesions regressed in about a week. The final diagnosis was transient lingual papillitis.

Discussion
Documented cases of transient lingual papillitis are few.\(^1,2\) Still, the condition is relatively common. On the survey done by Whitaker et al.\(^3\), 36 percent of 163 respondents admitted to having such lesions. An appellation given by respondents was that they had “lie bumps.” A search on the Internet for “lie bumps” reveals that they are well recognized and that the term arose from superstitions that they were “the result of someone telling lies.” TLP is limited to the dorsal surface of the tongue, affecting usually one or sometimes more of the fungiform papillae. It is a harmless but annoying problem. These bumps can become prominently red, white, or yellow-white and are tender for up to several days, although the pain or sensation is not severe. The biopsy of the case presented by Whitaker et al. showed a mild-to-moderate chronic inflammatory infiltrate with some surface ulceration. While the cause of TLP is not known with certainty, most experts feel that local accidental trauma (rubbing, scraping, or biting) is the major factor; however, contact reactions to things like certain foods have also been suggested. The bumps are not contagious and the discomfort is relatively minor. Typically, these lesions heal within a few days with little or no treatment. Numbing rinses may be helpful.

Summary
Transient lingual papillitis is an annoying, yet harmless condition. It is seen more in young women as a mild-to-moderate painful enlargement of one or more inflamed fungiform papillae that resolve within a day or several days. Trauma may be a likely cause but the exact cause is elusive. The following brief reports are presented to augment the clinical documentation of this condition.

References

Figure 1. Case 1 presented with a yellowish papule on the left lateral border of the tongue.

Figure 2. Case 2 presented with a raised, yellowish-white papule on the left anterior lateral border. Also note several prominently red fungiform papillae anterior to the lesion.

Figure 3. Case 3 presented with numerous swollen white fungiform papillae on the dorsal surface. The involvement of so many papillae is unusual in transient lingual papillitis.

John L. Guinta, BS, DMD, MS
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Pierre Fauchard: The Father of Modern Dentistry

In 1719, Fauchard settled in Paris, where he would spend the remainder of his life. His practice was located near the university at this time. Many of his patients were the most prominent dentists of France, and Fauchard quickly became recognized as a dentist with no equals. His service and advice were sought after by the most experienced French surgeons of the day.1

Treatise on the Teeth
In 1723, Fauchard completed the manuscript of Le Chirurgien Dentiste ou Traite des Dents (translated to: The Surgeon Dentist or Treatise on the Teeth) a text that would shape the future of dentistry. He wrote it to encourage greater education and the development of the dental profession. However, Le Chirurgien Den-tiste was not published until five years later, in 1728. It was now a work of 783 pages. Fauchard wanted this text to be as clean, accurate, and comprehensive as possible. It was published as a two-volume work and is seen as the first dental textbook. In the text, Fauchard passionately revealed and condemned the practices of the many charlatans of the day. He described in great detail the treachery those individu-als were playing on the unsuspecting people in dire need of dental treatment. He exposed them for what they were and also exposed the damage that they were inflicting upon their patients.

He proposed a unique idea—that dental patients be seated in an armchair. Until that time, all individuals, regardless of age, who required an extraction were seated on the floor.1 Fauchard started practicing dentistry in Angers.2 He called himself a “chirurgien-dentiste,” which translates to “surgical dentist.” Until this time, the very few capable indi-viduals practicing dentistry had referred to themselves as “den-tateurs,” or “denture makers.” Besides these few dentateurs, Europe was filled with individuals who would ply their trade at markets and fairs.3 Some could be characterized as rogues and charlatans.1

While his contributions to dentistry are well documented, very little is known about Fauchard’s youth. He is believed to have been born in Brittany, France, in 1678.3 His surname is very rare and is thought to be derived from a nickname.2 There is a medi-eval weapon known as a “fauchard,” which was a two-meter-long wooden pole with a curved blade attached to it.4 Fauchard joined the French Royal Navy as a student-surgeon in 1693 during the rule of Louis XIV.3 As was the case in the development of many legendary figures throughout his-tory, a young Fauchard (15 years of age) was very fortunate to fall into the company of an older, more established figure who would act as a tutor and mentor. In Fauchard’s case, this individual was French Royal Navy Surgeon Major Alexandre Poteleret, who had a keen interest in oral diseases.5 Fauchard heeded Poteleret’s advice and took advantage of his long jour-neys at sea. He documented the various cases of oral diseases and dental ailments that he encountered. One such disease was scurvy, which was very common back then for men sent out to sea for long periods of time.

In 1761 after having spent a lifetime treating patients of all ages in dire need of dental treatment, he exposed them for what they were and also exposed the damage that they were inflicting upon their patients. He proposed a unique idea—that dental patients be seated in an armchair. Until that time, all individuals, regardless of age, who required an extraction were seated on the floor.1

Le Chirurgien Dentiste also de-scribed the anatomy, function, develop-ment, and eruption of teeth in an elabo-rate fashion.3 When the subject turned to the subject of the practice of dentistry at the time into a new vocation now fully deserving of the term “profession.”

References
9. Fauchard stated that the “most common cause of the loss of teeth is the negligence of those people who do not clean their teeth when they might.”—Pierre Fauchard

Throughout the history of modern dentistry, there have been many luminaries in the profession. All have made tremendous contributions to various aspects of dentistry and the betterment of oral care in general. However, only one can be known as “the Father of Modern Dentistry.” This title is bestowed upon Pierre Fauchard (1678–1761), Fauchard truly metamorphosed the primitive “practice” of dentistry at the time into a new vocation now fully deserving of the term “profession.”
The toothbrush plant is a low-growing shrub that is found throughout Africa and the Middle East. It is used by the native peoples as a chew stick for cleaning their teeth. When the end of the wood is chewed, it becomes frayed and can be used as a natural brush that delivers therapeutic minerals and chemicals, present in the wood fiber, to the teeth and gingiva. The use of this wood for oral care could be a great benefit to people in industrialized nations.
or harvested, cut, trimmed, and sold in local markets for the equivalent of about 6 cents (see Figure 4). The soft, smooth bark can be peeled with the fingernails, and the end of the stick is usually chewed until it is mashed into a fan-shaped mass of bristles (see Figure 5). These are rubbed against the teeth and gingiva like a brush (see Figures 6 and 7).

The wood fibers are quite strong and do not easily decompose, even after multihour brushing sessions. Most often, a stick is placed in the mouth during walks or rides and used intermittently over long periods of time. Most Africans will take long walks or bus rides to distant destinations, resulting in a greater amount of “free time” than we tend to see in the industrial world’s societies. This creates a significant opportunity to “clean” the teeth and gingiva. All ages and genders use this stick, sometimes constantly throughout the day.

The toothbrush plant contains a large collection of chemicals, which may significantly help the teeth resist oral disease.2-6 Besides the effects of the plant fibers on the physical removal of plaque and stain, the toothbrush stick helps stimulate gingival circulation and exercise jaw muscles.7-13 The plant acts as a drug delivery system to the mouth. Using *Salvadora persica* chew sticks can help clean and whiten the enamel, as well as reduce halitosis and gingivitis by simple food removal.7 When used regularly, it lowers the Community Periodontal Index (CPI) significantly.12

*Salvadora persica* contains a host of active microbes.2-6,12 The stems contain benzyl nitrite, eugenol, thymol, eucalyptol, alkali salts (which raise pH and lower acidity), silica (an abrasive), and small amounts of fluoride that influence the rate of caries and periodontal disease.5 An aqueous solution of the wood sap possesses strong inhibitory qualities.8,11 It has been found to kill *Strep mutans*, *E. coli*, lactobacilli, and a variety of common oral fungi when exposed *in vitro*.10 The sap contained in the wood is more concentrated. In addition to having antibiotic qualities, the three essential oils (eugenol, thymol, and eucalyptol) will cause a slight topical analgesia of the gingiva, allowing the patient to clean harder and longer in an otherwise sensitive mouth.4

The toothbrush plant has been favored in those areas where the Muslim religion dictates that all the faithful must clean their mouths (including teeth) several times a day as a prelude to prayers. In other areas, the toothbrush plant use is purely cultural.6

In comparison with the standard toothbrushes of industrialized nations, *Salvadora persica* has been shown to be more effective in plaque removal experiments; however, operator technique and the time the instrument is applied to the teeth is a significant variable. Most First World people will not use their toothbrushes for hours each day as many Africans and Middle Easterners do with their toothbrush plant brushes.

There are some North American plants that are occasionally used in the same way as the Africans use the toothbrush plant. *Zanthoxylum americanum* is a gum tree that has been favored as a North American toothbrush.13 It does not contain the beneficial cocktail of chemicals in the sap and wood, but physically it makes a great brush and chew stick.
Suggestions for Use

The toothbrush plant helps the user in two basic ways. First, it acts as a brush that physically removes plaque and massages the gingiva. Second, it is also a drug delivery system that supplies naturally produced drugs (e.g., eugenol, fluoride) to the teeth and mouth. In the industrialized world, the use of wooden toothpicks has always been popular; they are offered at most restaurants and found in many homes. Designer toothpicks made of wood are also available and often recommended to patients by the dental community.

The toothbrush plant has demonstrated that toothpicks and chew-stick toothbrushes can be an effective method in preventing, reducing, and treating dental disease. U.S. Food and Drug Administration testing requirements, as well as product liability concerns, have precluded the use of drug-containing toothbrushes and toothpicks due to the economics and the liability involved. Utilization of Salvadora persica wood in our toothpicks and chew sticks worldwide would bypass these handicaps and give dentists a new, inexpensive tool in oral health care. The author would recommend that toothpick manufacturers consider producing their products from Salvadora persica rather than from birch, basswood, redwood, pine, and other North American trees.

References

Acknowledgement

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A Clinico-Pathologic Correlation: Primary Ewing’s Sarcoma of the Mandibular Body-Ramus

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MARIA B. PAPAGEORGE, DMD, MS

A 15-year-old Asian male was referred to the department of oral and maxillofacial surgery at Tufts University School of Dental Medicine (TUSDM) for evaluation of a radiolucent lesion on the posterior left mandible. The patient was initially evaluated by his primary dentist for pain of two months’ duration associated with teeth #17 and 18. Radiographic examination was performed and the panoramic radiograph revealed a radiolucent lesion involving the left mandibular body and ascending ramus, along with resorption of the roots of the predetermined teeth. Considering odontogenic infection, the patient was placed on antibiotics and referred to TUSDM for further evaluation and treatment.

History and Clinical Findings
The patient’s medical history was otherwise noncontributory, and he was in good general health. Upon further evaluation, the patient was found to be febrile. A lymph node approximately 1 x 2 cm in size was palpated in the ipsilateral submandibular region. Furthermore, an indurated expansion of the lingual and buccal aspects of the left mandibular body was obvious. Overlying mucosa was intact. Teeth #17 and 18 were tender to percussion. Patient had paresthesia of the left lower lip.

Radiographic Findings
A mixed radiolucent-radiopaque lesion with ill-defined borders approximately 3.5 x 1.6 cm, arising from the bony mandibular body extending to the floor of the mouth perforating the lingual bony aspect of the left mandible was obvious. Overlying mucosa was intact. Teeth #17 and 18 were tender to percussion. Patient had paresthesia of the left lower lip.

Histopathologic Findings
An initial biopsy was performed along with extraction of teeth #17 and 18, and the specimen was submitted for histopathologic examination. Histopathologic examination showed a wedge of mucosa surfaced by hyperplastic stratified squamous epithelium. The fibrous connective tissue exhibited scattered odontogenic rests and an extensive area of a nested, neoplastic small blue cell infiltrate, with small fragments of vital bone present at some specimen edges (see Figure 3). The infiltrate consisted of a highly cellular, monotonous population of small cells with indistinct cell borders and scant cytoplasm. Cells were small, round, and uniform, with hyperchromatic nuclei.

Periodic acid-Schiff staining (PAS) showed that neoplastic cells were positive for diastase-sensitive cytoplasmic glycogen. The neoplastic cells were diffusely and strongly positive for CD99 (see Figure 4a). A cellular proliferation marker, Ki-67, showed that about 40 percent of the cells were in active phases of the cell cycle (see Figure 4b). Chromosomal mapping showed translocation of chromosomes 11 and 22.

Diagnosis
Ewing’s sarcoma of the mandible.

Treatment
A whole-body scan was performed and found to be negative for distal metastasis. The combination of chemotherapy and surgical resection with primary reconstruction with osseomyocutaneous free fibula flap was the treatment of choice. Induction chemotherapy of four weeks was initially prescribed to the patient to achieve tumor shrinkage and decrease the possibility of hematogeneous spread during the surgical resection. This was followed by postsurgical chemotherapy. A total of 13 weeks of chemotherapy with rounds of ifosfamide-etoposide-Mesna (IE), vincristine-doxorubicin-cyclophosphamide-Mesna (VDC), and vincristine-cyclophosphamide-Mesna (VCM) were administered. Surgical resection of the tumor with good 2 cm resection margins was achieved. The left condyle was saved and reconstruction of the temporomandibular joint was avoided (see Figure 5). Intraoperative frozen sections were negative for marginal extension of the lesion. The patient was primarily reconstructed with osseomyocutaneous free fibula flap harvested from the left leg (see Figure 6).

Discussion
Ewing’s sarcoma is a rare malignancy that represents only 4 to 15 percent of all bone tumors. However, in children it is the second-most-common primary malignant bone tumor. Approximately 80 percent of cases occur in the first two decades of life. Although Ewing’s sarcoma may present in any bone, it has a strong predisposition for the long bones of the extremities and
cells have one or two round-to-oval nuclei with distinct nuclear membranes and finely dispersed chromatin. Necrosis is common. The cytoplasm stains with a PAS stain in 73 percent of the cases, thus indicating the presence of glycogen. In addition, immunostaining for CD99 (Mic-2) is expressed in more than 90 percent of Ewing’s sarcoma tumors, with a characteristic membranous pattern.1,2

The diagnosis of Ewing’s sarcoma can be very difficult and necessitates differentiation from other primitive tumors, including metastatic neuroblastoma, malignant lymphoma, small cell osteosarcoma, embryonal rhabdomyosarcoma, and primitive neuroectodermal tumor.2

Historically, Ewing’s sarcoma diagnosis relied on light microscopy and immunohistochemical markers, which were difficult to differentiate from other round cell tumors. However, the more recent discovery that most Ewing’s sarcoma cases exhibit a reciprocal translocation of the long arms of chromosomes 11 and 22 has provided an important diagnostic tool for the determination of Ewing’s sarcoma.2 In this instance, the fourth band in the second region of the long arm of chromosome 11 and the second band in the first region of chromosome 22 are translocated.3–5 Due to the (11;22) translocation, the hybrid protein’s transcription activation domain FIG-1 is replaced by the Ewing’s sarcoma sequence. This common cytogenetic feature is present in 90 to 95 percent of all cases.6

Typical treatments for Ewing’s sarcoma include surgery, radiation, and, in the case of metastases, chemotherapy. The most common sites of metastatic spread are the lungs and bones. Surgery is the treatment of choice for local control and should be carefully considered in each patient, depending on extension and location of the tumor. In our case, we used neoadjuvant chemotherapy after confirmation by biopsy to shrink the tumor mass and control occult distant metastasis. This was followed by systemic chemotherapy and radical surgery to remove the extent of the tumor. Advances in craniofacial and reconstructive surgery allow for resections of the mandibular bone with safety margins, along with simultaneous reconstruction. The vascularized fibular flap is a good solution for the reconstruction of bone defects in the mandible. The function and esthetic results obtained in our patient prove the excellence of this procedure (see Figure 7). The prognosis for Ewing’s sarcoma patients depends on early detection and metastatic spread. Patients typically experience a high incidence of relapses, which can occur up to 10 to 15 years after diagnosis.2 However, facial cases of Ewing’s sarcoma typically have a better prognosis than other sites because of early diagnosis.2 Radical surgery, radiation treatment, and chemotherapy for systemic control of subclinical micrometastasis has achieved a survival rate of 90 to 70 percent.1

In our patient’s case, he has been under regular follow-up and currently has no evidence of recurrence after two years. He will continue to be followed periodically.

References
Dentigerous cysts are the second-most-common cysts occurring in the jaws. A dentigerous cyst is formed as a result of fluid accumulation in the reduced enamel epithelium surrounding an unerupted tooth. These cysts typically present as well-defined pericoronal radiolucencies either superior or lateral to the unerupted tooth. Dentigerous cysts involving the posterior maxillary teeth tend to grow into and fill the maxillary sinus and, hence, are discovered late. Posterior mandibular dentigerous cysts commonly extend well into the ramus. There are often no clinical symptoms, with the exception of swelling once the cyst reaches a considerable size.

Management of a dentigerous cyst is by surgical removal, most often including the tooth or marsupialization. This is a report of one such case of dentigerous cyst involving the anterior maxilla.

An 11-year-old girl presented with a swelling in the upper jaw, asymmetry of the face, and malposition of maxillary left anterior teeth. On clinical examination, there was a swelling in the left anterior maxilla. The overlying mucosa appeared smooth and pink. There was significant displacement of the maxillary left permanent lateral incisor and canine.

The panoramic radiograph showed displacement of the left maxillary lateral incisor and canine (teeth #10 and 11), with possible loss of lamina dura on the distal aspect of the central incisor (tooth #9). The floor of the left maxillary sinus could not be discerned.

A cone-beam computed tomography (CBCT) scan was done for better evaluation of the extent and characteristics of the lesion. The CBCT scan showed a well-defined corticated expansive lesion in the left anterior maxilla displacing teeth #9, 10, and 11. The lesion measured 46 x 33 x 39 mm and appeared to be continuous with the lamina dura of the lateral incisor. The lesion extended from the distal aspect of tooth #9 to the distal aspect of the second premolar. There was significant buccolingual expansion and thinning of the maxilla, with thinning and displacement of the floor and the lateral wall of the nasal fossa. The left maxillary sinus was found to be almost completely opacified, along with possible thinning of the orbital floor.

The differential diagnosis for the lesion, based on the radiographic presentation and the age of the patient, included benign odontogenic cysts and tumors, such as dentigerous cyst, odontogenic keratocyst, ameloblastic fibroma, unicystic ameloblastoma, and adenomatoid odontogenic tumor.

The patient was referred to oral surgery for biopsy and management. Histological diagnosis was a dentigerous cyst. Surgical removal with extraction of the lateral incisor and canine was the treatment of choice.
CEMENTO-OSSEOUS DYSPLASIA

Single- or multifocal cemento-osseous lesions of the jaws are commonly encountered in clinical practice and are typically discovered during the course of routine radiographic examination. These lesions evolve from completely radiolucent in the initial phase to mixed radiolucent-radiopaque in the intermediate stage to completely radiopaque in the end stage. In the initial radiolucent stage, the lesion can be easily confused with a periapical cyst, granuloma, or abscess.\(^1\) When the lesion is totally radiopaque, it is indistinguishable from generally well-recognized radiopaque lesions, such as condensing osteitis or osteosclerosis.

The classic radiographic presentation of cemento-osseous dysplasia is in the anterior mandible, generally restricted between canine and canine. A more diffuse process involving two or more quadrants is referred to as florid cemento-osseous dysplasia. While both of these entities are more commonly noted in middle-aged black females, a solitary area of radiopacity referred to as the focal subtype of cemento-osseous dysplasia may be seen with increased frequency in white females. It is useful to remember that in the absence of any symptoms or cortical expansion, these lesions do not typically require further treatment. Careful assessment with pulp vitality testing and to ensure lack of cortical expansion will help separate these innocuous lesions from those lesions that require more definitive therapy. In mature lesions of florid cemento-osseous dysplasia when the bone is entirely radiopaque, spontaneous formation of simple bone “cysts” (empty cavity) has been described.\(^2\) Additionally, it is important to note that when any procedure is undertaken in these hypovascularized areas of bone, such as implant placement, the patient is at increased risk of developing osteomyelitis.

References

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Achieving root coverage in the esthetic zone can be difficult using traditional techniques. Placing a subepithelial connective tissue graft or acellular dermal matrix graft over areas of recession often involves using vertical releasing incisions and/or splitting the interdental papilla to raise a flap. These surgical incisions can lead to possible scarring and loss of papilla height, which may be unacceptable to patients in the esthetic areas of the mouth. By using a supraperiosteal envelope technique, the need for incisions across the papilla or vertical incisions is avoided, leading to better healing and a more rapid esthetic result.

The patient presented is a 45-year-old male who wished to have veneers placed on the maxillary teeth to remake his smile. He was referred for soft-tissue grafting to cover the recession on teeth #5, 6, and 8 through 12 (see Figure 1). Due to the esthetic nature of the case and acceptable local factors, it was decided to perform a supraperiosteal envelope technique. Subepithelial connective grafts were harvested from the palate using a single-incision, split-thickness technique. Incisions were made through the buccal sulci of each tooth and a split-thickness dissection was done, tunneling under the overlying tissue to connect each tooth (see Figure 2). The grafts were placed and sutured (see Figure 3). The esthetic goal was achieved, as represented by the eight-week postoperative photo (see Figure 4).
The 8th Annual MDS Foundation Golf Tournament: A Resounding Success

Turner Hill Golf Club in Ipswich was buzzing with activity on Monday, June 29, 2009, as more than 140 MDS Foundation supporters gathered for a day of golf, dinner and live auction bidding. The rainy morning gave way to an afternoon of sunshine as golfers made their way along the challenging and spectacular course. The day was capped off with a cocktail hour in the historic grand mansion followed by a delicious dinner and exciting live auction hosted by MDS Foundation President Dr. Richard LoGuercio and Drs. John A. Herzog and Michael P. Seidman, and Heidi Olwell of Dental Associates of Cape Cod. Thanks to everyone who attended the outing and to all of the sponsors and donors who supported this fundraiser, which raised approximately $55,000 for the MDS Foundation.

Throughout the day, golfers had the opportunity to participate in various contests: Drs. Herzog and Seidman, Tom Picone of 3M ESPE, and Renato Perfetti won Closest to the Pin contests; James McDonough and Betsy Totten won the Longest Drive contests; and Dennis O’Ttoole won the Closest to the Line contest.

This year’s tournament would not have been possible without the dedication of the MDS Foundation Golf Committee, chaired by Dr. Herzog. Special thanks to our tournament sponsor Gentle Dental, as well as MDS Insurance Services, Inc., Plaza Catering & Deli, Blue Cross Blue Shield of Massachusetts, Nobel Biocare, UBS, Doral, and Rosen & Associates, LLP, for their sponsorships and support.

In addition, the following MDS district dental societies generously supported the tournament:
- Berkshire: $400
- Cape Cod: $1,000
- East Middlesex: $250
- Merrimack: $1,000
- Metropolitan: $1,000
- Middlesex: $500
- North Metropolitan: $500
- North Shore: $1,000
- Southeastern: $2,000
- South Shore: $1,000
- Wachusett: $1,000
- Valley: $1,000

Please consider making a donation to the MDS Foundation at www.mdsfoundation.org/giving so that we can continue to deliver oral health care to the underserved. All proceeds benefit the MDS Foundation, the charitable arm of the Massachusetts Dental Society. The MDS Foundation is dedicated to improving access to dental care for underprivileged children and adults, and enhancing educational opportunities for those who wish to pursue a dental auxiliary career.
Dental Practice Transition—A Practical Guide to Management

DAVID G. DUNNING, PHD, BRIAN M. LANGE, PHD

Wiley-Blackwell

A

lthough this text basically is aimed at the recent graduate, in the newly tightened economy we are all facing, it can be used to reevaluate all of our practices. With individual, almost stand-alone chapters, the editors have gathered practical advice from various sources, such as private practitioners, academics, practice management consultants, financial advisors, and behavioral scientists to “reflect on the process of making a career choice and some of the key issues in that process.”

A look at the contents of one of the chapters demonstrates the value to be gathered from these experts. The chapter’s section titles include: Internal marketing and customer service: How do they relate?; Internal marketing; The three levels of patient-friendly customer service; Excellence in communication skills; Asking for referrals; First impressions count; The welcome packet; Morning huddle; Portraying a professional image; Guidelines for dental dress for success; The significance of the team to the patient; and Definition of patient services.

This type of format is repeated throughout the text, with each chapter presenting practical hints for practice management. And let’s face it: We can all use refreshing hints within our practices.

Problems in Endodontics—Etiology, Diagnosis and Treatment

MICHAEL HÜLSMANN, EDGAR SCHÄFER (EDITORS)

Quintessence Publishing

“Endodontics is enjoyable” kicks off the preface of this book. It seems that this view is shared by many in the profession, in spite of the often difficult conditions that prevail in everyday practice. This notion has led to a sort of “endodontic euphoria” in the past few years. As ever, when procedures are not only fascinating and absorbing, but also have good prognoses, even under ordinary practice conditions—provided that basic treatment principles are upheld—there is a tendency to go deeper and deeper into the subject and risk treating increasingly more complex and difficult cases. The editors and their contributors use this textbook to try to make those more complicated cases easier to handle.

Starting with diagnosis, the text covers topics such as preserving pulp vitality, treatment planning, health-related issues, anesthesia, access, and visualization. Chapters feature discussion of other topics, such as the mechanics of preparing teeth for obturation, as well as lessons in managing accidents and other problems that may occur.

Chapters are nicely presented, with warning hints and color-coded important suggestions and messages prominently displayed, making for an easy reference. Each chapter also includes informative case reports. The use of charts, radiographs, and photographs adds to the learning experience. The techniques and instruments for clinical management are discussed and referenced by scientific literature.

The text offers a wealth of tips and treatment options for the specialist, as well as the general practitioner.

Introduction to Metal-Ceramic Technology—Second Edition

W. PATRICK NAYLOR

Quintessence Publishing

I should put forth a disclaimer before starting my review: This book holds a personal appeal for me, as it is dedicated to the late Ralph W. Phillips, research professor emeritus of dental materials at Indiana University School of Dentistry, who passed away in May 1991. I was fortunate enough as a student at Indiana University to be included on his research staff, and became his friend. He was always available as a mentor, advisor, and friend. Those who knew Ralph still miss him.

This second edition has been updated to present the theory and technical procedures for physically constructing an esthetic metal-ceramic restoration using contemporary dental porcelain systems. The updated text includes an increased emphasis on evidence-based documentation and expanded dental materials content, as well as updated dental porcelain and dental alloy classifications.

Although it may appear that this text is aimed at the dental laboratory technician, the fundamentals involved with this popular restoration will help the practitioner in diagnosis, preparation, and construction of the crown.

MDS Roster Available Online

Do you need to find a colleague’s address, office phone, or email address? Use the Find a Member function on the MDS Web site at www.massdental.org/find-a-dentist. You can find members by last name, specialty, or city/town, and the listings are updated daily so you are sure to have the most recent information. Log in to the Web site and you can also access members’ email addresses. Log in today at www.massdental.org/login.
I went on vacation to Spain and grew a beard. It was a whim, really, born of a holiday impulse to escape confinement and heightened by the pleasure of anonymity. OK, and completely ignoring that American icon, Charles Barkley—who said, “Why do bald guys always wear beards? When I started to go bald, I took it like a man”—I may also have been harboring the tiniest curiosity about whether adding hair to my jowls might balance what nature has been busy erasing from my cranium. Friends in Valencia, including an architect who has worn a beard himself for 25 years, encouraged me. Lingering over late-night dinners, they said things like “Give your razor a rest. It makes you look like a professor” and “Now you look like a doctor.”

As stubble bloomed into graying bristle, my wife and kids urged me to keep it going. “You look smart, Dad,” my daughter said. “Literary,” my wife murmured. I read that Sean Connery has sported a beard in some 17 films since the 1990s, and I allowed myself to imagine that my spreading facial hair was more than a novelty. It seemed almost dashing. I looked in the mirror and pictured the neatly combed whiskers of Czar Nicholas II.

But back home, people saw my beard as less Nicholas and more Rasputin. At first, the folks I encountered in my dental practice smiled and called me Abe Lincoln, Brigham Young, and Santa Claus. Then, as if I were missing the message, reactions turned blunt. “What happened? You used to be nice looking,” one woman scolded. “What is that on your face?” another demanded to know. As time went on, the comments grew wilder and woollier. My neighbors greeted me with “Hey, mountain man!” or “Yo, ho, pirate!” My niece allowed that my grizzled snout reminded her of the family schnauzers. Finally, my mother put the truth on the table: She told me I looked like a terrorist.

Although a 2000 video made public in 2006 by the London Times revealed that the previously barbigerous Mohamed Atta and Ziad Jarrah shaved for their murderous assignment in 2001, Americans associate beards with bombs. Twentieth-century revolutionaries and dictators from Lenin to Che Guevara to Ayatollah Khomeini wore well-publicized whiskers. The beard’s threat to democracy was such that in the 1960s, the Central Intelligence Agency supposedly considered a mission to snuff deploratory into Cuba to relieve Fidel Castro of his famous wispy strands. (In Cuba, people are said to still evoke Castro without even using words, simply by stroking an imaginary beard.) Washington science teacher Gary Weddle garnered news coverage on the fifth anniversary of 9/11 in 2006 because he stopped shaving after the September 11 terrorist attacks, vowing to let his beard grow until Osama bin Laden was captured or killed.

Among my peers, my beard rendered me invisible. I spent two days at a professional meeting introducing myself to people I have known for years. “I’m so sorry,” I heard colleagues say over and over, “but I just didn’t recognize you.” “You look . . . uh . . . distinguished,” said the association’s president. “She means extinguished,” interjected the association’s executive director.

But more than anything, to a vocal minority of the people I interact with, at any rate, my beard looked somehow threatening. At one time, beards were “emblems of wisdom and piety,” in the words of Thomas Babington Macaulay. Now they are symbols of shiftiness. While goatees have made a fashion comeback of sorts, full beards still raise eyebrows. Beards are outlandish, even outlawish, the province of bad boys and yokels. Cowboy heroes out West may wear luxurious Wyatt Earp mustaches, but the desperadoes wear beards.

Because I am a dentist—veritable pop-culture icon of pain, power, and brush-twice-a-day routine—many people received my hirsute declaration as a threat to social order. “Who do you think you are now,” several of my patients asked me, “some kind of free spirit?”

Americans are supposed to be comfortable with fluid identities. This, after all, is the land of extreme makeovers. Beards clearly help in this respect. When Robin Williams wants to look serious, he grows a beard. When David Letterman gets bored, he grows one, as he did during the two-month TV writers’ strike last year. Back on the air, Williams didn’t hesitate to compare Letterman to Robert E. Lee, a rabbi, and an Iraqi mullah, and told him, “You should have your own cough drop.” New York Mayor Michael Bloomberg gave Letterman’s beard a key to the city. Letterman himself told his audience, “I know what you’re thinking. You think Dave looks like a cattle-drive cook.” Still, a cartoon showed a couple at home watching Letterman’s show. “Shhh,” one said to the other, “he’s about to do his opening fatwa.”

If hair, as journalist Shana Alexander wrote, “brings one’s self-image into focus,” my beard radically scrambled mine. I don’t mind projecting wisdom, or even virility, but desperado just doesn’t fit my self-concept. Even in Spain these days, a beard may look threatening. A Spanish law professor with a long beard don’t mind projecting wisdom, or even virility, but desperado just doesn’t fit my self-concept. Even in Spain these days, a beard may look threatening. A Spanish law professor with a long beard

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SPLITTING HAIRS

WENT ON VACATION TO SPAIN AND GREW A BEARD. IT WAS A WHIM,