OF THE CALIFORNIA DENTAL ASSOCIATION

Journal

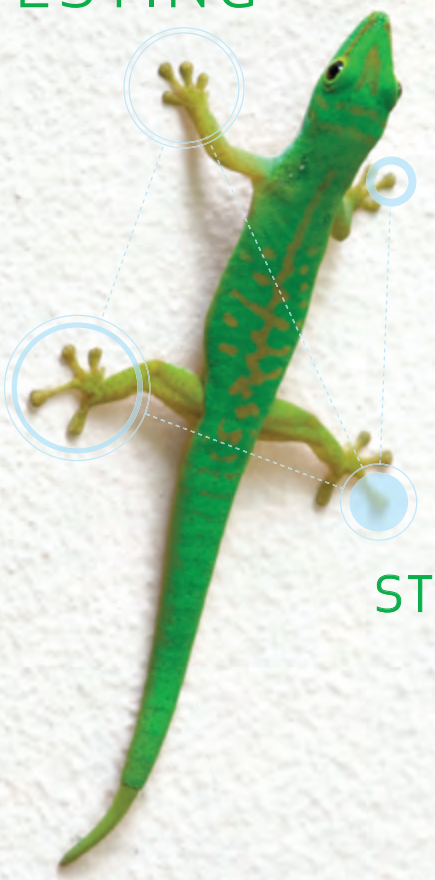
NOVEMBER 2010

Population Study

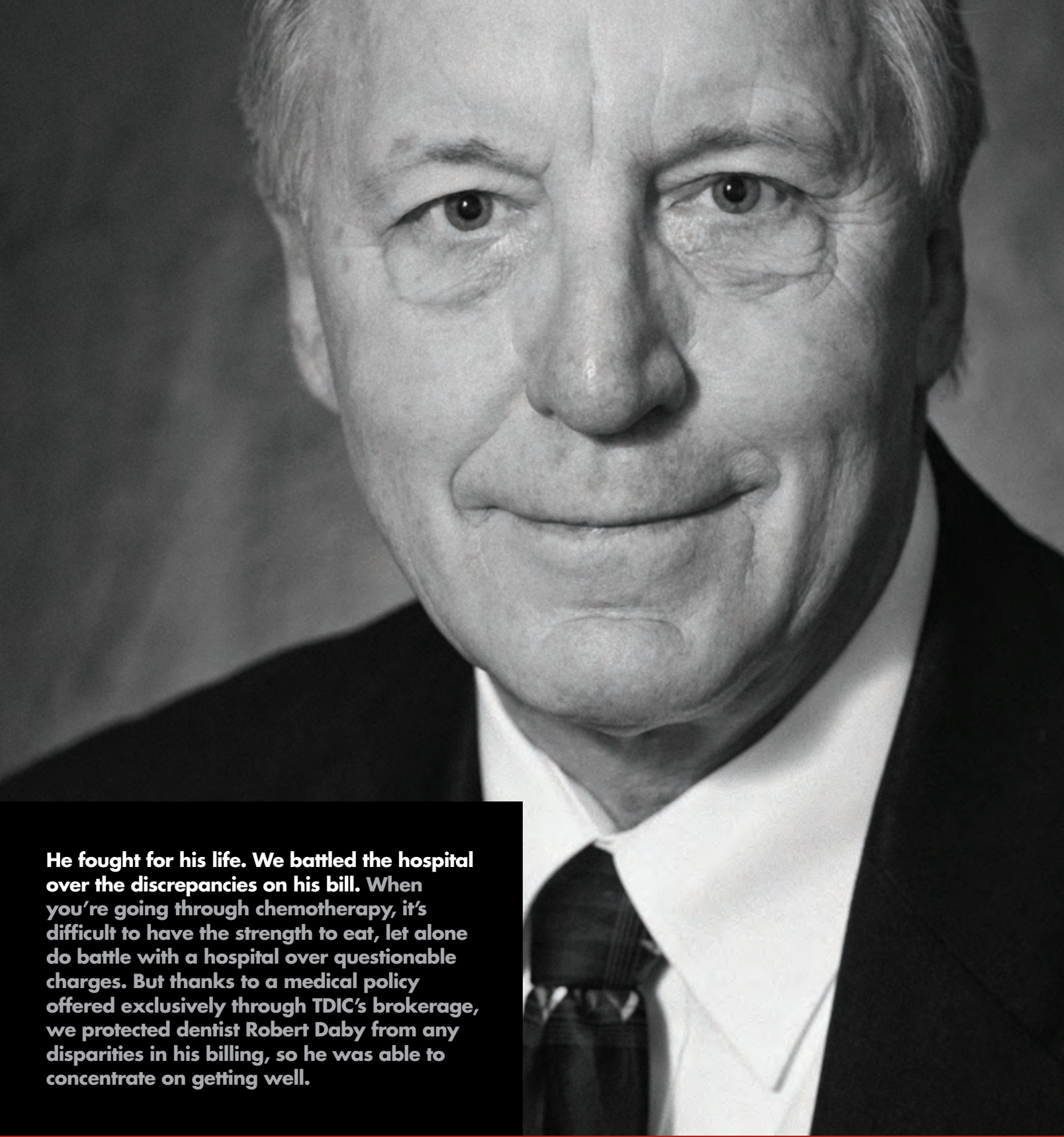
Maxillofacial Injury

Oral Malignancy

TESTING BOND STRENGTHS



Vol 38 No 11



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OF THE CALIFORNIA DENTAL ASSOCIATION

Journal

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Prepare Your Office for the Big One

BRIAN SHUE, DDS

The end came suddenly and violently for many in the dark, early morning of April 18, 1906, when the earthquake's epicenter struck just 2 miles off of San Francisco's western shoreline. The magnitude 7.9 earthquake on the San Andreas fault crumpled homes and buildings to the ground, trapped sleeping occupants, and crushed the very last breath out of the unsuspecting. When the dust and soot finally settled, the earthquake and subsequent fires had claimed the lives of 3,000 to 5,000 people, damaging property all the way from Humboldt County in the north to Hollister in the south.

If the 1906 earthquake were to repeat in the Bay Area today, it would cause 5,800 deaths and destroy 150,000 residences.[1] A magnitude 7.8 earthquake in Southern California's section of the San Andreas fault would cause 1,800 deaths, 53,000 injuries, the collapse of thousands of older buildings, 45,000 other buildings would be complete losses, and would total $213 billion in damages.[2] Compare those statistics to the scale of Hurricane Katrina that killed more than 1,500 and caused $81 billion in losses.

It isn't a question of "if" a major earthquake strikes California, but "when." A major study reports there is a 37 percent probability that a magnitude 7.5 or greater earthquake will strike the southern San Andreas and a 15 percent chance in the north in the next 30 years.[3] However, the study also shows there is an 82 percent chance a smaller magnitude 7.0 will strike Southern California and a 68 percent chance of one in Northern California in the 30-year span.

Are you ready for the Big One? If not (and surveys show most of us are not), it's time to get prepared. We live and work in earthquake country, whether we like it or not. An Easter Sunday magnitude 7.2 earthquake that hit just across the international border a few dozen miles away from my home this year was another reminder that life in our Golden State's land of dreams also has the potential to become a place of nightmares.

It isn't a question of "if" a major earthquake strikes California, but "when."

It is not enough just to make earthquake preparations at home. Earthquakes can strike during working hours, so we need to protect not only our patients and staff, but our businesses as well. As health professionals who are the head of our dental teams, it is our responsibility to provide leadership with well-planned emergency systems in place at work, and that includes earthquake preparedness.

There are many steps that can be taken to prepare for a devastating earthquake that may occur while at the dental office.[4] Thorough details can be found in the "Prepare" section of the U.S. Geological Survey website (earthquake.usgs.gov). The basics include preparing your office and staff with fire and evacuation plans, including scheduled drills and reviewing earthquake safety techniques.

Know "Drop, cover, and hold on." Know where each patient in the office can seek cover, such as along a wall in the operatory. Identify unsafe areas: near windows, doorways (unless it is a load-bearing doorway), outside doors and walls, masonry veneers, heavy furniture, glass, or lighting fixtures. Train staff on their responsibility to direct the patients where to go for safety in the office. Make sure your staff has family emergency communication plans: how they will communicate and find their family members after a major earthquake.

Identify potential hazards. Bolt heavy equipment and office furniture like file cabinets to wall studs. Place heavy objects closer to the ground, secure cabinet doors with latches to prevent contents from falling out. Fix potential problems around the office and building. Strengthening your office will allow you to be open sooner and will protect staff and patients. Work with landlord and property manager to address concerns.

The key is to be self-sufficient for a minimum of three days at your dental office since first responders may be overwhelmed in the aftermath of a large quake. You may not be able to get to your home immediately. Overpasses can collapse, roads can be damaged, or you can possibly be trapped in your building.

Have an easily accessible disaster supply kit. Recommended basic supplies include flashlights and a portable radio with extra batteries, first-aid kit, emergency food and water (include 1 gallon of water per person per day), a nonelectric

can opener, essential medicines, a whistle to signal for help, moist towelettes and bags for personal sanitation, a wrench or pliers to turn off utilities, and local maps. Staff should monitor items for expiration. Staff should also have a seven-day supply of necessary medications.

It is important to have a written Fire and Emergency Action plan. Go to the CDA compass website, www.cdacompass.com, to access one. Make sure to customize it to your office.

The 1906 San Francisco earthquake mortally wounded its fire chief when the building next door collapsed through his roof. Despite his emergency plans, subsequent failure to follow through and poor decision-making resulted in San Francisco's further collapse.

When a major earthquake strikes, your staff and patients may be dependent on you for solid leadership. Now is the time to take responsibility and the proper steps necessary to get your office and building ready for the Big One. ■■■■

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Expensive 'Doorstops'

This is in response to your editorial "Sometimes I Feel Really Stupid" (*Journal of the California Dental Association* 38(9):624-6, September 2010). Having gone through the painful learning curve of CAD/CAM, I understand completely the trials and tribulations of integration of new technology. I am the kind of dentist to hang back and wait for the bugs to get worked out of things before I leap and make the purchase, but CAD/CAM seemed to have a lure of its own. Back in 2004 I decided for numerous reasons to make the leap. Believe me when I say the learning curve was steep for me and often frustrating, but I reached a point where you either make a commitment to "get it" or dump it. I needed to get it and I am happy I did.

The positives do outweigh the negatives, but there is the cost of committing emotionally and physically. None of us should be made to feel stupid if there is a technology out there that is getting a lot of hype, despite the difficulties involved with integration into one's practice. I know many colleagues who have very expensive "doorstops" taking up space. I have one myself in the way of an old CO_2 laser that an electrosurgical unit has effectively replaced.

What is most important to realize is that there are many ways to practice excellent dental care. What is critical is that the achievement of excellence is what is important, not the path to reaching it. As long as we can make that commitment and convey that to our patients, we will reach a reasonable level of success in our practices and our lives.

JAMES L. PEARLSTEIN, DMD
Beverly Hills, Calif.

Placing BPA Use in Perspective

A recent paper in the medical literature, widely reported by the media, has raised renewed public interest in the safety of dental sealants. The literature review in the journal *Pediatrics* reported that bisphenol-A (BPA) is released from composite resins and dental sealants through salivary enzymatic hydrolysis of BPA derivatives and is detectable in saliva for up to three hours after resin placement.[1] Since the article appeared after the October 2010 dental sealant theme issue of the *Journal of the California Dental Association* had gone to press, I would like to address the issues raised in the article and attempt to place the report in perspective.

Separate from the fact that BPA is detectable in saliva for a very short time after sealant placement, the authors acknowledge that the duration and quantity of systemic BPA absorption is not discernable from the available data. In fact, BPA exposure from dental materials occurs much less frequently and in far smaller amounts than from common everyday sources such as plastic food-storage containers, some water bottles, and metal food can linings.

A review of the pertinent literature provides ample evidence that bisphenol-A is not an ingredient in the materials used in dental sealants. What intraoral exposure to BPA that occurs in the sealant process is a byproduct of the degradation of other components of sealant materials, which fall below the no observable effects level (NOEL). In fact, the estimated one-time exposure (upon sealant placement) to BPA is approximately 5.5 micrograms, which is two to five times lower than the estimated daily exposure from foods and environmental sources.[2,3]

The authors of the article suggest that wiping or rinsing the surface of the cured resin or sealant, now a recommended best practice, further reduces the levels of any uncured byproducts in the saliva. The authors conclude that "on the basis of the proven benefits of resin-based dental materials and the brevity of BPA exposure, we recommend continued use with strict adherence to precautionary application techniques."

The article contains a further caution that resin placement should be minimized during pregnancy, or, if used, there should be "scrupulous control of the operative field." While it is hard to argue with good practices in this regard, including use of rubber dam isolation during restorative material and sealant placement, the caution may exceed the science. Dr. James Crall, professor of pediatric dentistry at University of California, Los Angeles, said, "Frankly, I think the article is going a bit beyond the current level of evidence when it comes to pregnant women."[4]

Dentists should be prepared to address the concerns of patients and parents regarding the health risks of any of the materials used in dentistry, including those associated with dental sealants. Current evidence-based research indicates that sealants are effective in preventing pit and fissure caries in susceptible teeth and at-risk populations, that salivary contamination from BPA derivatives can be minimized with good clinical practices, and that the negligible systemic exposure to BPA after sealant placement has no discernable clinical consequence.

PAUL REGGIARDO, DDS
Guest editor, sealant issue,
Journal of the California Dental Association
Huntington Beach, Calif.

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Jean Beauchamp, DDS; Page W. Caufield, DDS, PhD; James J. Crall, DDS, ScD; Kevin Donly, DDS, MS; Robert Feigal, DDS, PhD; Barbara Gooch, DMD, MPH; Amid Ismail, BDS, MPH, MBA, DrPH; William Kohn, DDS; Mark Siegal, DDS, MPH; and Richard Simonsen, DDS, MS. Evidence-based clinical recommendations for the use of pit and fissure sealants: a report of the American Dental Association Council on Scientific Affairs. J Am Dent Assoc *139(3): 257-68, March 2008.*

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Matt Mullin

Information Morality

BY DAVID W. CHAMBERS, PHD

It is surprising how many folks believe the "P" in HIPAA stands for "privacy." And the "I" in HIPAA must represent "information." So the law is assumed to protect patients' rights to privacy in health information. HIPAA actually stands for the Health Insurance Portability and Accountability Act, and there is a whole branch of philosophy concerned with information morality.

HIPAA has little to say about privacy, but Title 2 of the act — which is called, in true Washington style, the Administrative Simplification Section — goes on for pages about confidentiality and security.

Privacy is freedom from forced disclosure of personal information. The Fifth Amendment to the Constitution states that one cannot be compelled to offer self-incriminating information. Institutional review boards protect

CONTINUES ON 789

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SW is launching the latest advancement in hand protection, Pearlescent nitrile disposable gloves. The disposable gloves are durable and provide exceptional barrier and chemical protection while not taking away from the sensitivity and grip needed when handling instruments. These nonlatex gloves come in rose and iris shades with Pearlescent sheen. For more information go to swgloves.com.

Jaw Injuries Resulting From Big Burgers in Taiwan

Apparently there's another reason not to bite off more than you can chew: an increase in jaw injuries from noshing on supersized hamburgers.

According to the *British Broadcasting Company* report, a Taiwanese university professor has determined that large hamburgers are the cause of the rising number of jaw injuries. Hsu Ming-lung, of the National Yang-Ming University, has found that patients are having trouble opening their mouths after eating giant hamburgers in some Taiwan eateries. Difficulties arise when diners try to eat burgers taller than 3 inches.

Hsu said a human mouth is designed to gape over objects measuring up to 1 ½ inches and overextension, such as in an effort to bite into a giant burger, can injure the joint between the jawbone and the temporal bone in front of the ears.

He called on fast-food restaurants in Taiwan to limit the size of their hamburgers to prevent the public from quite literally biting off more than they can chew, according to a news release.

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Tooth Bleaching Standard Available for Comments, Review

The American Dental Association Standards Committee on Dental Products has approved for review and comment Proposed American National Standard/American Dental Association Specification No. 118 for tooth bleaching products.

This specification, according to a news release, provides requirements for tooth bleaching products that are either used in offices by dental professionals (in-office tooth bleaching products) and/or at home by individuals (home-use tooth bleaching products).

ADA's specifications and technical reports assist ADA members in choosing safe and effective materials, instruments, equipment and information systems and are available for download purchase or hard copy from the ADA catalog, adacatalog.org, or by calling (800) 947-4746. For copies of the draft technical reports, call (800) 621-8099, ext. 2506, or e-mail standards@ada.org.

Little Leaguer Knocks It Out of the Park in Anti-Tobacco Campaign

Twelve-year-old Little Leaguer Eli Kruse took a swing at tobacco that made a winning connection with judges of annual slogan contest hosted by Oral Health America.

Eli's message, "Be a hitter, not a spitter — don't chew tobacco!" sends a clear message that tobacco has no place in the ballpark. The slogan encourages young baseball and softball players to talk to their coaches and parents about tobacco addiction and the health risks of tobacco use, according a news release.

"In addition to being thrilled and proud of Eli's slogan, we are equally delighted that the contest provided an opportunity for our family to discuss the harms of tobacco," said Eli's parents, Herb and Jen Kruse, in a previous interview.

Since 1994, the National Spit Tobacco Education Program (NSTEP) has been focused on breaking the link between baseball and tobacco use. Eli's slogan is featured on a pin designed by NSTEP and was distributed recently at the Little League Baseball World Series in South Williamsport, Penn. Eli received a monetary award and a trip to the Little League world series games that included him in an on-field award ceremony.

Now in its ninth year teaming up with Little League International, NSTEP continues to educate families about the risks of smokeless tobacco use, including oral cancer, gum disease, tooth decay, and nicotine addiction. During the 10-day Little League Baseball World Series held last August, NSTEP provided tobacco and health education to thousands of young baseball and softball players and their families.

An estimated nine percent of high schoolers used smokeless tobacco in the past month, according to the 2009 Centers for Disease Control and Prevention's Youth Risk Behavior Surveillance. The 2009 Monitoring the Future study from the University of Michigan found that 80 percent of 10th graders disapprove of people using spit tobacco regularly.

INFORMATION MORALITY, CONTINUED FROM 787

potential research subjects from revealing personal information, by answering questions or providing biometric data, if that is what they wish. Privacy concerns what is revealed or discoverable.

Confidentiality is a reasonable expectation that revealed information will not be passed along to others or used in unauthorized ways. It concerns what can be disclosed. Selling names on mailing lists, gossip about patients, and some would argue the National Provider Data Bank, are examples of breached confidentiality, not privacy.

Security is a matter of taking reasonable precaution to ensure against unintentional breaches of confidence. Information security includes coding patient information with protected keys, training for personnel, and rules and protocols that reduce the likelihood somebody else getting information for unwarranted use.

The morality of privacy is anything but clear. People pay psychiatrists to listen to their private matters. Companies spend fortunes to tell you what you should think of them. We readily cough up our Social Security and credit card information to buy goofy things on the Internet. Dentists are on sound moral grounds refusing care to patients who decline to provide health history information vital to treatment.

Consider this story. A woman and her daughter were enjoying a day at the beach until a group of teenagers established themselves nearby and engaged in extremely loud, personal conversation, and nearly completely disrobed. The mother complained to them that she could hear and see too much. The teenagers were indignant. "Mind your own business." The teenagers wanted to control both what information was revealed and what use could be made of it. So did the mother. The privacy concerns in this case are very complex.

The moral solution is that privacy needs to be negotiated, especially in health care. Immorality comes in failing to get necessary information and in breaking the negotiated agreement about how information is to be treated.

The nub:

1. Informed consent should include negotiation over the minimal amount of information both the patient and dentist will need for effective treatment.
2. Revealing information provided for the purpose of effective treatment for personal gratification, curiosity, or profit is abuse of power.
3. Protect the trust you have been given, even from accidental loss.

David W. Chambers, PhD, is professor of dental education, Arthur A. Dugoni School of Dentistry, San Francisco, and editor of the Journal of the American College of Dentists.

Study on Dental Access for Children Due Soon

The ADA is awaiting the Government Accountability Office's study of access to dental services by children in underserved areas, children's access to oral health care under Medicaid and CHIP, and the feasibility and appropriateness of using qualified midlevel dental health providers in coordination with dentists to improve oral health access for children.

The study was one of many stipulations in last year's reauthorization of the Children's Health Insurance Program, CHIP. Over the last few months, ADA staff met with the GAO to explain concerns about having anyone other than a dentist perform surgical procedures, how the current dental team works and how proper support for the team — including adequate funding of Medicaid and CHIP — has proven successful in addressing access to care for children in states that have been willing to provide the necessary resources, according to a news release.

The ADA also described the benefits of the ADA-supported new dental team member — the community dental health coordinator — and how that individual can be used to help bridge the gap between providers and the underserved population through community outreach and education.

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Correction

Due to a production error, an incorrect abstract for the article, "Pediatric Dental Care: Prevention and Management Protocols Based on Caries Risk Assessment for Infants and Toddlers," by Francisco J. Ramos-Gomez, DDS, MPH, MS, et al., was published in the October issue of the *Journal of the California Dental Association*. The corrected article has been posted in the October Journal file on cda.org. The correct abstract is as follows:

Abstract

Recent increases in caries prevalence in young children, especially among minorities and the economically disadvantaged, highlight the need for early establishment of dental homes and simple, effective infant oral care preventive programs for all children as part of a medical disease prevention management model. This article presents an updated approach and practical tools for pediatric dental caries management by risk assessment in an effort to stimulate greater adoption of infant oral care programs among clinicians and early establishment of dental homes for young children.

UPCOMING MEETINGS

2010	
Nov. 7–13	United States Dental Tennis Association, Grand Wailea, Hawaii, dentaltennis.org.
2011	
April 6–10	California Society of Pediatric Dentistry 36th annual Session/Western Society of Pediatric Dentistry ninth annual session, San Francisco, 831-625-2773, drrstewart@aol.com.
April 10–16	United States Dental Tennis Association, Tampa, Fla., dentaltennis.org.
May 12–14	*CDA Presents* the Art and Science of Dentistry, Anaheim, 800-CDA-SMILE (232-7645), cdapresents.com.
June 16–18	ADA New Dentist Conference, Chicago, (800) 621-8099, ext. 2779, ada.org/goto/newdent.
Sept. 22–24	*CDA Presents* the Art and Science of Dentistry, San Francisco, 800-CDA-SMILE (232-7645), cdapresents.com.
Sept. 22–24	United States Dental Tennis Association, Palm Desert, Calif., dentaltennis.org.

To have an event included on this list of nonprofit association continuing education meetings, please send the information to Upcoming Meetings, CDA Journal, 1201 K St., 16th Floor, Sacramento, CA 95814 or fax the information to 916-554-5962.

Innovative Method Developed to Aid in Tooth Hypersensitivity

Researchers at New York University College of Dentistry have identified a novel method for treating tooth hypersensitivity while thwarting bacteria from causing more damage.

A coating made from fluoride and zinc ions in a calcium-phosphate matrix demonstrated success in reversing damage to the tubules caused by *Streptococcus mutans*, which usually is associated with tooth decay, according to a news release. The coating not only caused the exposed tubules to close again, but also prevented *S. mutans* from causing further damage. The findings were presented earlier this year at the 2010 annual meeting of the International Association for Dental Research in Spain.

Most toothpastes, protective strips, and other treatments for tooth hypersensitivity utilize potassium oxalate to close the tubules. But potassium oxalate cannot prevent a recurrence of tooth hypersensitivity because it is highly susceptible to the effects of acids in tartar, plaque, citrus drinks, and other liquids.

Racquel Z. LeGeros, PhD, professor and associate chair of Biomaterials & Biomimetics at NYU's College of Dentistry, and co-principal investigator Haijin Gu, DDS, chief dentist at Sun-yat-sen University Guanghua School of Stomatology in Guangzhuo, China, compared two groups of dentin samples immersed for 24 hours in a solution containing *S. mutans*. One group was treated with the calcium-phosphate/fluoride/zinc formulation for eight minutes, while the second group received no treatment. Bacteria multiplied on the untreated samples, but their growth and development was inhibited on the treated dentin, according to a news release. In addition, the treated group had significantly fewer open tubules than the untreated one.

"Because the calcium, phosphate, and fluoride ions formed a solution that occluded the open dentin tubules, and the zinc ions inhibited bacterial growth and colonization, our findings suggest that this formulation may represent a tooth hypersensitivity treatment that is less susceptible to the effects of acid than treatments made with potassium oxalate," said LeGeros, who plans more analysis to validate the findings.

Periscope offers synopses of current findings in dental research, technology, and related fields.

PEDIATRIC DENTISTRY

THOMAS S. TANBONLIONG JR., DDS

Extreme caution must be taken when sedatives are administered to obese patients.

Bimstein E, Katz J, Obesity in children: a challenge that pediatric dentistry should not ignore – review of literature. *J Clin Pediatr Dent* 34(2):103-6, winter 2009.

PURPOSE: The purpose is to review the literature on relationships between childhood oral diseases and obesity, and between obesity, breathing, and conscious sedation.

The following are important points made by the authors:

- The relationship between caries and obesity is not clear.

- Obesity may be a cause for obstructive sleep apnea syndrome. Also, persistent sleep apnea is more common in obese children. Sleep apnea can lead to poor sleep quality. This can be associated with prehypertension and cardiovascular risks.

- Obesity can compromise the quality of sedation and put the child's life at risk. Obesity can impede the motion of the diaphragm when in a supine position. Sedative selection would be carefully considered. Drugs with minimal to no respiratory depressant effects should be preferred.

- Sedative agents may require a long time to affect the obese patient due to increased distribution of adipose tissues; after the treatment, it may take longer to eliminate the drugs.

- There is current literature supporting an association between periodontal disease and pediatric obesity.

CONCLUSIONS: Childhood obesity is an epidemic. As dentists, we must be aware of the different ramifications obesity can cause in our patients. Extreme caution must be taken when sedatives are administered to obese patients who may have an increased risk for caries and periodontal diseases.

ORAL AND MAXILLOFACIAL SURGERY

D.D.R. YAMASHITA, DDS

Efficacious pain relief through objective and subjective measures.

Grant G, Mehlisch D, Intranasal ketoralac for pain secondary to third-molar impaction surgery: a randomized, double-blind, placebo-controlled trial. *J Oral Maxillofacial Surg* 68:1025-31, May 2010.

AIM: To investigate the efficacy and safety of intranasal ketorolac in patients who had third-molar removal with bony impactions.

METHODS: Randomized, double-blind, placebo-controlled study. After surgery, patients were randomly assigned to receive intranasal ketorolac (31.5 mg) or placebo (40 participants in each group). Efficacy was based on patient response to visual analog scale, total pain relief, and global pain evaluation up to eight hours after dosing or until patients required rescue analgesia. The primary efficacy variable was the summed pain intensity difference score over the first eight hours after dosing.

RESULTS: Summed pain intensity difference values, total pain relief scores were all significantly higher in the ketorolac group than placebo and statistically significant ($P<0.001$). More people in the ketorolac group reported good or very good or excellent pain control (60 percent) as compared to the control group (13 percent). The ketorolac group also reported shorter times to perceptible and meaningful pain relief.

CONCLUSIONS: A single IN ketorolac dose of 31.5 mg was well tolerated and provided rapid and effective pain relief in oral surgery patients for a period up to eight hours.

CLINICAL RELEVANCE: This well-designed study validates the efficacy of ketorolac in the intranasal form. Although unclear as to exactly when the drug was administered, the study clearly shows efficacious pain relief through objective and subjective measures. Intranasal ketorolac can be self-administered, minimizing or obviating the use of opioid medications. Keeping in mind contraindications to its use (GI bleeds, bleeding dyscrasias), intranasal ketorolac may be a safe and effective alternative to narcotic pain medications for third-molar surgery in the near future. There may even be a role for ketorolac in the immediate preoperative period in the prevention or minimization of postoperative pain.

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ORTHODONTICS

GLENN T. SAMESHIMA, DDS, AND DONALD KWON, DDS

While application of the SEP saves chairtime, it does not provide the same level of resistance to enamel decalcification.

Ghiz MA, Ngan P, et al, Effects of sealant and self-etching primer on enamel decalcification. Part II: an in vivo study. Am *J Orthod Dentofacial Orthop* 135(2):206-13, February 2009.

AIM: To compare the effects of a conventional etch and sealant (CES) and a self-etching primer (SEP) on enamel decalcification in vivo.

METHOD: Twenty-five patients who met the criteria for selection at the Department of Orthodontics, West Virginia University School of Dentistry, were selected for this study. Criteria included permanent dentition in both arches, no previous orthodontic treatment, full treatment (18-24 months), and no detectable decalcification on the surface of the teeth to be bonded. Before bonding, enamel surfaces were treated with either a CES (Light Bond, Reliance Orthodontic Products, Itasca, Ill.) or a SEP (Transbond Plus, 3M Unitek, Monrovia, Calif.) by using a split-arch technique. At the end of the observation period, the O'Leary plaque index was used to determine the patients' oral hygiene compliance, and enamel decalcification around the orthodontic bracket was scored based on the amount and severity of decalcification. Scanning electron microscopy images and X-ray spectrum analysis were performed to examine the etched pattern of the two bonding systems.

RESULTS: A total of 469 teeth were scored; 371 had a score of 1 (no white spot formation), 61 had a score of 2 (slight white spot formation/decalcification); 33 had a score of 3 (severe decalcification); and 4 had a score of 4 (cavitation). Significantly higher decalcification scores were found in the SEP group (27.5 percent) compared with the CES group (13.9 percent). No significant differences were found in the decalcification scores for teeth in both arches. Significant differences were found between level of hygiene and the amount of decalcification. Patients with fair or poor hygiene compliance had higher decalcification scores in the SEP group than in the CES group.

CONCLUSIONS: A significantly higher decalcification score was found when enamel was treated with the SEP when compared with the CES in patients with fair to poor oral hygiene. While application of the SEP saves chairtime, it does not provide the same level of resistance to enamel decalcification as the CES.

BOTTOM LINE: Self-etching primers are gaining in popularity due to the elimination of the etching step. However, this study showed that the risk of decalcification is greater with their use; hence, clinicians should pay even closer attention to hygiene when using SEP for bonding brackets.

IMAGING

SANJAY M. MALLYA, BDS, MDS, PHD; AND
SOTIRIOS TETRADIS, DDS, PHD

CBCT performs as well as re-entry surgery for evaluating defect fill and defect resolution following periodontal regenerative therapy.

Grimard BA, Hoidal MJ, et al, Comparison of clinical, periapical radiograph, and cone-beam volume tomography measurement techniques for assessing bone level changes following regenerative periodontal therapy. *J Periodontol* 80(1):48-55, 2009.

THE CLINICAL PROBLEM: Currently, intraoral radiography is used to evaluate the outcome of regenerative periodontal therapy. However, these radiographs are difficult to standardize and may not accurately depict assessment of the outcome of therapy.

AIM: To evaluate cone-beam computed tomography (CBCT) to assess bone levels following regenerative periodontal therapy, and compare this technique with intraoral radiography and direct clinical measurements.

METHOD: This patient cohort included 29 patients who received demineralized freeze-dried bone allograft alone or in combination with an enamel matrix derivative. At baseline, the dimensions of the bony defect were measured and the graft was placed. At least six months later, the size of the bony defects were evaluated at re-entry surgery. Intraoral radiographs and CBCT scans were done prior to both the baseline and the surgical re-entry visits. At both time points, the shortest distance from the CEJ to the alveolar crest and the largest distance from the CEJ to the base of the bony defect were recorded. These measurements were made clinically, as well as on the intraoral radiographs and CBCT scans.

RESULTS: Measurements made with intraoral radiographs did not correlate well with surgical measurements (r=0.53–0.67). In contrast, there was a strong correlation between measurements made on CBCT images and the clinical measurements (r=0.89–0.95). There was no significant difference between CBCT and clinical measurements for evaluation of defect fill and defect resolution.

CONCLUSIONS: CBCT measurements are more precise than intraoral radiographs for the evaluation of regenerative periodontal therapy.

BOTTOM LINE: CBCT performs as well as re-entry surgery for evaluating defect fill and defect resolution following periodontal regenerative therapy. Given it is less invasive than surgical re-entry, this imaging modality could be used to identify those patients who may require surgical re-entry for retreatment.

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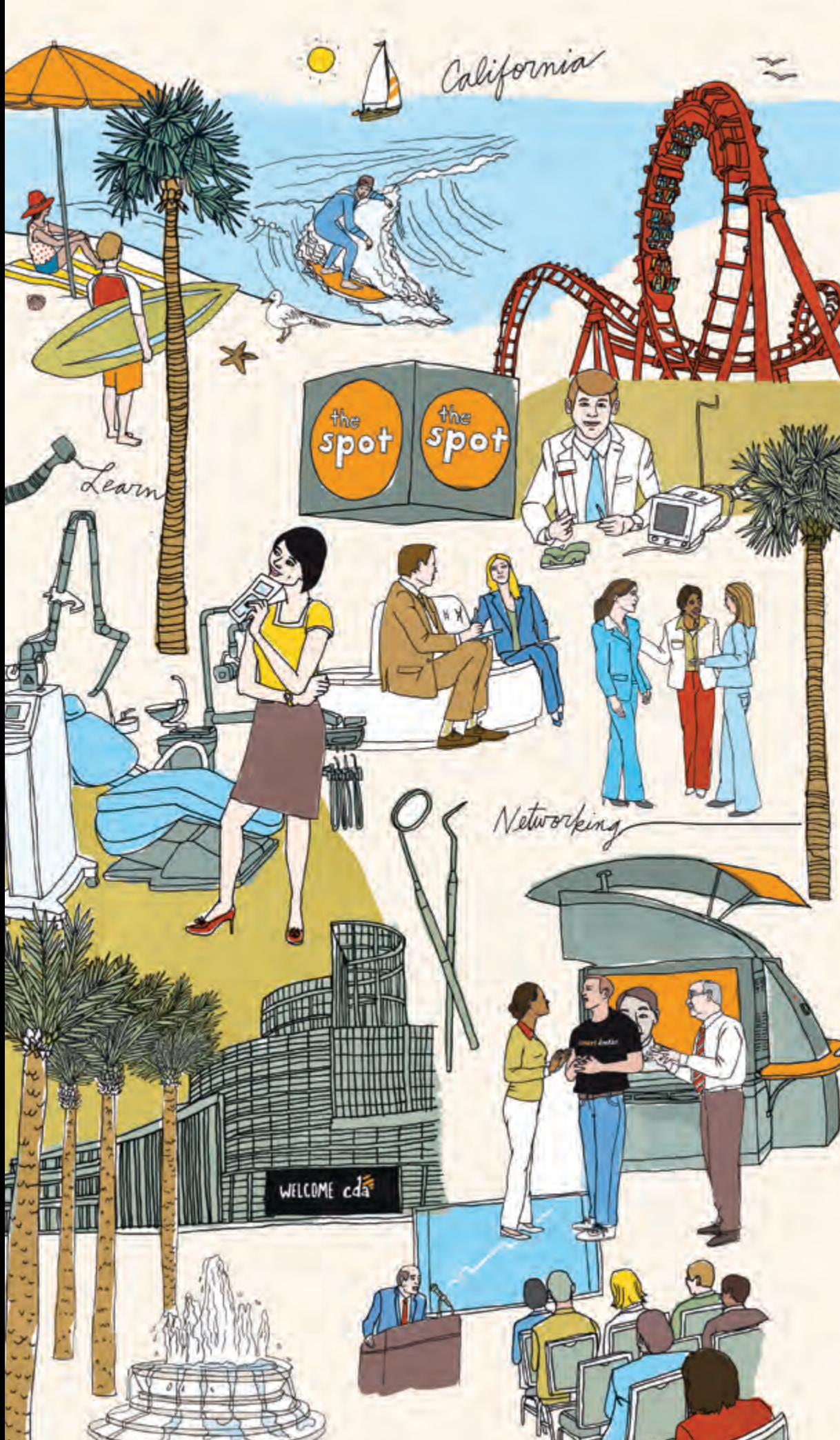

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Effects of Different Surface Preparations on Shear Bond Strength of Orthodontic Brackets to Porcelain

FARZIN HERAVI, DDS, MS; SAEID MOSTAFA MOAZZAMI, DDS, MS; AND MAHBOOBE DEHGHANI, DDS, MS

ABSTRACT The aim of this study was to assess bonding of orthodontic metal brackets to porcelain surfaces using various surface treatment methods. Etching the porcelain with 9.6 percent HF followed by a bonding agent or silane application provided high and acceptable shear bond strengths.

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Ceramic and metal-ceramic restorations are commonly used to restore damaged or missing teeth, and also to enhance the esthetics in natural dentition. With an increase in the number of adult patients undergoing orthodontic treatment, the likelihood of orthodontic bonding to these surfaces has also increased, and presented new problems to the orthodontist.[1-6]

Bonding in orthodontics is semi-permanent; therefore, bond strength of orthodontic attachments should be high enough to resist accidental debonding during treatment but also low enough to make excessive forces unnecessary for the debonding of brackets. However, a lack of durable bonding between the brackets and ceramic restoration is still a major problem in clinical orthodontics.[5]

To achieve sufficient bond strength, numerous options have been suggested that were generally combinations of various mechanical and chemical conditioning methods.[5] Roughening the surface by sandblasting or a diamond bur resulted in a reliable bond strength.[1,3,5-7]

On the other hand, conventional acid etching (37 percent phosphoric acid) seems to be ineffective in preparing porcelain for orthodontic attachments.[4] It has been shown that preparation of the porcelain by 9.6 percent hydrofluoric acid produces a stronger bond that is enough for the demands of orthodontics.[3,4,8] There are, however, concerns over potential toxicity and the protection required during clinical use of 9.6 percent HF. Hydrofluoric acid is strong, requiring careful isolation of the working area for several minutes.[1,2] Some studies have suggested that acidulated phosphate fluoride (APF) gel is appropriate to be used as etching material for porcelain surfaces.[2,9,10]

Another common method to increase bond strength of brackets to porcelain is to use silane coupling agents.[1,4,6,7,9]

FIGURE 1. A sample mounted on Zwick testing machine and ready for shear testing.

TABLE 1

Mean Shear Bond Strength (Mean), Standard Deviation (SD), Standard Error (SE), Maximum Value (Max) and Minimum Value (Min) of Test Groups

Groups	Mean	SD	SE	Max	Min
Group 1 (bonding agent)	8.30	4.0	1.2	11.1	5.4
Group 2 (silane)	4.11	1.3	0.4	5.0	3.1
Group 3 (HF+ bonding agent)	9.79	2.2	0.7	11.4	8.1
Group 4 (HF+ silane)	11.63	2.5	0.8	13.6	9.6
Group 5 (APF+ bonding agent)	3.86	1.9	0.6	5.2	2.5
Group 6 (APF+ silane)	6.38	1.5	0.4	7.5	5.2
Group 7	4.37	1.7	0.5	5.6	3.1
Total	**6.85**	**3.6**	**0.4**	**7.7**	**5.9**

However, it has shown that the usage of silane increases the occurrence of porcelain fracture during debonding.[3] It also has demonstrated that some adhesive systems provide adequate bond strength of composite resin to porcelain.[8]

The purpose of this study was to investigate the shear bond strength and failure locations of metal orthodontic brackets bonded to porcelain substrate prepared by different surface treatment methods using HF, APF, silane, and a bonding agent.

Material and Methods

Seventy flat porcelain disks (Shade A1, VMK68, Vita Zahnfabrik, Bad Sackingen, Germany) were made in approximately 5 mm diameter and 7 mm thickness, and cured in a vacuum oven (Vita Vacumat 300, Vita Zahnfabrik), according to the manufacturer's recommendation. Before bonding the brackets, each sample was examined by transillumination and those with any visible defects were excluded. The specimens were mounted in acrylic resin blocks. Their surface then was deglazed by a diamond bur (No. 1094, Kg, FG Sorenson, Sao Paulo, Brazil). Subsequently, they were randomly divided into seven groups of 10 specimens. The following surface treatments were applied:

Group 1: A bonding agent (Single Bond; 3M ESPE, St. Paul, Minn.) was applied directly in a thin layer, excess resin was removed by air, per the manufacturer's instruction, and then polymerized for 20 seconds by a low intensity program of Australis 7 (Vivadent, Schaan Liechtenstein, Austria) light-curing unit with 400 mw/cm^2.

Group 2: Silane (Ultradent Silane, Ultradent products, South Jordan, Utah) was placed on the porcelain's surface and allowed to penetrate, according to the manufacturer's recommendations for the bonding of porcelain.

Group 3: 9.6 percent hydrofluoric acid (HF-Porcelain Etch, Ultradent products) was used for one minute to etch the porcelain's surface according to the manufacturer's instruction, rinsed for 30 seconds and air-dried before the application of the bonding agent.

Group 4: HF was used to etch the surface of porcelain as mentioned in group 3, and then silane was applied.

Group 5: 1.23 percent acidulated phosphate fluoride (APF-Fluoride gel, Dentsply product, Latin America) was applied for 10 minutes, rinsed for 30 seconds, air-dried and then the bonding agent was applied.

Group 6: APF was used, as mentioned for group 5, and then silane was applied.

Group 7: The porcelain's surface became deglazed by a diamond bur without etching or any further surface treatment. This group served as the control group.

Standard 0.018 maxillary central incisor stainless-steel brackets (Ultratrimm Edgewise brackets, Dentaurum, Ispringen, Germany) were used for bonding to the conditioned porcelain surfaces with a no-mix orthodontic bonding material (Transbond XT, 3M Unitek, Monrovia, Calif.), according to the manufacturer's guidelines. Composite excess was removed from the periphery of the brackets' base by an explorer, and each specimen was allowed to be cured for 15 minutes.

The specimens were stored in fresh water for 24 hours at 37 degrees Celsius. They then were mounted in a specially made holding device in the universal testing machine (Zwick/Z250) to measure the shear bonding force of the adhesive interface until fracture point (FIGURE 1). The specimens were loaded at a cross-head speed of 1 mm/min. The cross-head was placed perpendicular to bracket-porcelain interface. The shear bond strength was expressed in mega Pascal by dividing the registered load at failure point by the surface area of the bracket base (13.20 mm^2). After debonding, the fracture sites were examined using a stereomicroscope (SMZ-U, Nikon, Tokyo, Japan) with five times the magnification to

TABLE 2

Modes of Failure of Metal Brackets Bonded to Porcelain After Various Surface Treatments

	ARI score				
	0	1	2	3	Porcelain fracture
Group 1 (bonding agent)	7	3	—	—	—
Group 2 (silane)	10	0	—	—	—
Group 3 (HG+bonding agent)	5	5	—	—	—
Group 4 (HF+ silane)	3	7	—	—	—
Group 5 (APF+ bonding agent)	10	0	—	—	—
Group 6 (APF+silane)	8	2	—	—	—
Group 7	8	2	—	—	—

A score of zero: no composite left on porcelain; score of 1: less than half of composite left on porcelain; score of 2: more than half of composite left on porcelain; score of 3: all composite left on porcelain, with distinct impression of bracket mesh.

determine the location and the manner of the failure, and classified according to the modified adhesive remnant index (ARI) by Artun and Bergland.[11]

The shear bond strength values were analyzed and compared by analysis of variance (ANOVA) and post-HOC Tukey test.

Results

The mean shear bond strength and standard deviation of each of the seven testing groups are illustrated in **TABLE 1**. Group 4 (etching by HF and application of silane) had the highest shear bond strength value (11.6 MPa), while group 5 (etching by APF and application of a bonding agent) had the lowest value (3.8 MPa).

One-way ANOVA showed that there was a statistically significant difference among testing groups (P=0.0001).

Compared to the control group, the application of APF did not increase bond strength significantly. On the other hand, porcelain disks etched with HF 9.6 percent had the highest bond strength.

A notable finding in this study was that there was no significant difference between shear bond strength in cases using a bonding agent without surface treatment and application of bonding agent after HF application (8.3 and 9.79 MPa, respectively). Both groups have high enough bond strength values.

TABLE 2 shows the modes of adhesive failure in different groups. In group 4, in which the surface of porcelain was etched by HF and a bonding agent was applied, less than half of the composite was left on the ceramic surface after debonding (score 1). In other groups, brackets failed mainly at the ceramic/resin interface and the entire adhesive remained on the bracket base.

No fracture in the ceramic body was observed in any groups.

Discussion

With an ever-increasing demand for adult orthodontic treatment, clinicians need to know more about the bonding of orthodontic attachments to nonenamel surfaces of restored teeth.[4] In clinical use, the bond must be strong enough to withstand orthodontic and chewing forces.

Currently, there is no universally accepted minimum clinical bond strength. However, it has been suggested that bond strength of 6 to 8 MPa for orthodontic bracket bonding are sufficient clinically.[12]

The results of present in vitro study showed significant differences in shear bond strengths of metal brackets bonded to porcelain with different surface treatment methods. However, adequate bond strength has been achieved by most of approaches.

Glazed porcelain surfaces are not amenable to resin penetration. Surface roughening increased the surface area available for retention and has been suggested as an effective way to enhance bond strength to porcelain.[2,4] Therefore, the authors roughened the surfaces of all porcelain specimens with a diamond bur to break through the glazed surface before bonding.

In this investigation, the highest bond strength was achieved by etching with HF, either by the application of silane or a bonding agent. The results for groups etched with HF were significantly higher than groups treated with APF. Although, group 1 (using only a bonding agent after roughening) and group 6 (etching by APF and adding silane) had significantly lower bond strengths than HF-silane group, which had the highest one, their results were in the range of clinical acceptance for orthodontic needs. So, as an alternative to HF application, which had potential harmful effects on oral tissues and would be required adequate isolation, using a bonding agent after surface roughening could achieve good bond strength to porcelain, especially on anterior teeth that are not subject to high occlusal forces.

The results showed the application of silane after the roughening of the

porcelain surface (group 2) produced bond strength values that might not be considered clinically useful and were not significantly different from the control group. However, the silane application after using HF increased bond strength significantly. The application of APF resulted in an increase in bond strength values but changes were not statistically significant. In the porcelain-composite bond, silane functions as a coupling agent, which adsorbs onto and alters the surface of porcelain, thereby facilitating the interaction between these two materials.[4] In the case of the application of bonding agents, mechanical retention will be improved to make a stronger bond between composite and the surface of porcelain.

Using a bonding agent after either surface roughening or etching by hydrofluoric acid, before the bonding of brackets, the authors achieved shear bond strengths equal or greater than those reported to be sufficient to withstand orthodontic forces. Considering the necessity of careful protection and isolation during the HF application, bonding agent application after surface roughening can be used as a simple and safe method for the bonding of orthodontic attachments to porcelain.[2]

The authors also found that a one-minute etching by HF, rather than two or four minutes, as previously suggested, can result in acceptable SBS values.[2,3,8] With the reduction of etching time, damaging the tissue, due to HF application, would also be decreased.

APF application (as an etchant for groups 5 and 6), which contained 1.23 percent sodium fluoride, resulted in low bond strength values that were not clinically acceptable and did not have a significant difference from the control group. These findings coincide with Zhachrisson's and Bone's studies.[2,9]

When assessing the site of bond failure, the percentage of failures at the porcelain-composite interface increased as the bond strengths decreased. This meant that the site of bond failure shifted from porcelain-composite interface toward composite-bracket interface by increasing bond strength. The highest percentage of composite-bracket interface failure occurred in the groups treated with HF. Previous studies are in agreement with these results.[3,5,6]

Finally, it should be mentioned that many factors affect bond strength and caution must be exercised when comparing in vitro studies and extrapolating their results to the clinical situations.

Conclusions

The bonding of brackets to porcelain specimens were evaluated in this study using different surface treatment methods. The following points are important to be mentioned:

1. Etching by 9.6 percent hydrofluoric acid and the application of silane or a bonding agent resulted in the highest bond strength values between composite and porcelain.
2. The application of a bonding agent after roughening the surface of porcelain resulted in clinically acceptable bond strength.
3. Etching with APF could not increase bond strength to the clinically acceptable threshold.
4. Surface roughening alone, without any other treatments, did not produce acceptable bond strength. ■■■■

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Dentistry From the Perspective of the San Francisco Phone Book

DAVID W. CHAMBERS, EDM, MBA, PHD

ABSTRACT A population study of all San Francisco dental practices identified characteristics of Yellow Pages listings and display ads and practice characteristics such as dentists' ages, fictitious business names, and history of disciplinary actions. Older practitioners, those with multiple offices, and dentists who experienced disciplinary actions were more likely to be listed in the Yellow Pages and to use display ads. Just more than half of fictitious business names were registered with the California Dental Board.

AUTHOR

David W. Chambers, EDM, MBA, PHD, is a professor of dental education at Arthur A. Dugoni School of Dentistry in San Francisco.

This research was undertaken to determine whether there is evidence that younger members of the dental profession have a more commercial outlook toward practice, as reflected by listings in the Yellow Pages. Characteristics of practices, such as the use of fictitious business names and a history of disciplinary action, characteristics of phone book listings and display ads were also explored, and relationships among these factors was tested. This research may be unique in that an entire population was studied rather than a self-selected (and perhaps unrepresentative) sample.

There is a modest literature on phone book advertising among health care professionals. Among physicians this is primarily a topic for editorials, and the point of contention is the impression of specialty qualifications created by purchasing a listing under "specialty" sections in the phone book.[1-4] (To see the importance of this concern, it should be noted that dental practices are listed in three sections of the San Francisco Yellow Pages: a general section, a section based on geography in the city, and a section of dentist types, such as orthodontics, pediatric dentistry, oral surgery, implants, and cosmetic dentistry.)

The largest number of papers appearing under the heading of "Yellow Pages" in the PubMed database is for dentistry. This includes 15 pieces in *Dental Economics, Dental Management,* and *Modern Dental Practice*, with titles such as "How to use the Yellow Pages to attract new patients" and "Developing effective Yellow Pages ads" and an article by K. L. Schwab that appeared in five state dental association journals in 1993.

There are four empirical studies of Yellow Pages use, two involving dentists, and all of them have been by academics in schools of communication or business. Fisher and Coleman characterized the types of information contained in dentists' Yellow Pages display ads (those that contain information other than name, address, and phone number).[5] These authors found that practice location and hours of operation were the kinds of information most often projected among 1,007 ads in their sample from the 20 largest metropolitan areas in the United States. McAlexander, Becker, and Kaldenberg found that the use of display ads instead of listings was associated with younger practitioners and with practices having higher net incomes.[6] Their study included 264 general dentists in Oregon and was conducted in 1992. Differences between physicians and members of the public with regard to what information was judged most useful in advertisements were investigated by Cobb-Walgren and Dabholkar.[7]

Potential customers placed more value on information contained in advertisements, including those in the Yellow Pages, than did physicians. Butler and Abernethy compared a sample of almost 12,000 Yellow Pages listings for physicians in Atlanta, Chicago, and Charlotte, NC, with the features thought desirable by a sample of 365 shoppers in malls in the southeastern part of the United States.[8] They found congruence between the desired information and the information available in phone book listings, with the single exception that potential patients would prefer to see more information about the experience of physicians.

Materials and Methods

An unusual feature of this research is that a population of dentists (the entire set) was used rather than a sample (a subset). A survey sample methodology would likely be subject to self-selection bias in reporting. This method holds the potential for more socially appropriate responses being overrepresented and provides no accurate way of determining the likely small proportion of practices with undesirable characteristics such as disciplinary actions or lack of a current license. Two challenges were faced in this research in an effort to minimize bias: (a) extensive follow-up was used to identify the characteristics of all dentists, including those whose identity and history were not readily available, and (b) complete enumeration of all categories and subcategories of practices so that estimates of proportions were as accurate as possible.

POTENTIAL CUSTOMERS placed more value on information contained in advertisements, including those in the Yellow Pages, than did physicians.

San Francisco was chosen as the population for study because of the large number of practices and wide ethnic and socioeconomic diversity among patients. As the tip of a peninsula, the boundaries of the service area, for both dentists and patients, is more sharply defined than are most metropolitan areas with adjacent suburbs. The phone book listings are for an area almost identical to the component dental society.

Four sources were used to gather information: (a) the 2009 San Francisco phone book, AT&T "The Real Yellow Pages" listings of dentists, which was published in December 2008, (b) the 2008-2009 San Francisco Dental Society Membership Directory, (c) the State of California Department of Consumer Affairs online directory of dental license holders and fictitious business names, and (d) phone calls to approximately 90 dental offices and three attempted personal visits to offices. A database was created from these sources that contained, as the basic unit of analysis, the name of the office (dentist or group or fictitious business name). For each office, the following data were recorded: year of first dental degree or year of licensure in California (or both); school of graduation; membership in the San Francisco Dental Society, full-time status as a faculty member in one of the two San Francisco dental schools or full-time postgraduate student status; Office of Consumer Affairs ownership classification; and information about delinquencies and disciplinary actions taken against practitioners.

All ads were coded by size according to the following scale: 1=simple one- or two-line listing of name, address, and phone number; 2=same simple listing with bolding or color; 3=simple listing with an additional single line of text (as for example "Practice limited to orthodontics" or "Next to Laurel Village"); 4=1-inch box continuing information about the practice; 5=one-column box extending 1 to 4 inches in length; 6=two-column box containing information, photos, and graphics; 7=half-page ad; and 8=full-page ad. All information in addition to name, address, and phone number was coded. This included location, hours, procedures performed, products sold, languages spoken, specialty qualification, emotional appeals, mention of financial arrangements, qualifications (both the traditionally approved form of representation

to the public and special "credentials"), mention of cosmetic dentistry, and reference to a website. Multiple listings were noted, both within the general section of dentists and in special sections of the phone book arranged by "specialty" and by geographic region of the city.

Rates for placement of listings of name, address, and phone number, at the time of the study were $60/month; display ads the size of a business card were quoted at $600/month.

The unit of analysis for this project was the dental practice or "advertising entity," not the individual dentist. In the case of partnership group practices, the dentist with the earliest license was selected on the grounds that a single representation was being made to the public and that the senior dentist would have the greatest say in the form of that representation. This assumption was called into question by the representative of the San Francisco Yellow Pages who said, in his experience, phone book listings and advertisements for dental offices are predominantly made by office staff members. An unknown number of dentists who work as employees or associates are not represented distinctly in the database. They make no independent representations to the public.

The exception to this generalization occurs in the case of members of the San Francisco Dental Society, all of whom are listed separately in the database, whether they appear in the San Francisco phone book or not. Three organizations that displayed the largest ads (the two dental schools and one clinic) were excluded from analysis because these ads were essentially lists of locations, services, or phone numbers, and because it would be difficult to characterize who made the decision regarding representation to the public. Although full-time faculty members and full-time students in postgraduate educational programs were included in the database, they were flagged and not counted in the analysis of active practices. Also excluded from the tally of active practices were individuals identified in the San Francisco Dental Society Membership Directory as practicing outside San Francisco or individuals identified by the Department of Consumer Affairs as having offices outside San Francisco or who reside more than 100 miles from San Francisco.

TWO CASES WERE discovered of the dentist's name having been misspelled in the phone book — a fact unknown to the staff.

Some practitioners have two listings of their names, a practice more common among Chinese who invert their given name and surname. These cases were counted as a single practice with multiple listings. Retired life and retired members of the San Francisco Dental Society were not counted. The total of active practices in San Francisco was 1,095.

One-hundred-eighteen practices are listed in the San Francisco phone book under fictitious business names. The state Dental Practice Act requires that these names be registered with the board, but searches of the Department of Consumer Affairs website and the San Francisco Dental Society Membership Directory confirmed that only 54 percent of these are registered. Phone calls were made to staff at the offices with undocumented fictitious business names, and, after the author identified himself and the purpose of the inquiry, the name of the "chief dentist" was requested. This procedure allowed for identification of the owner dentist in 38 cases. Sixteen practices were especially difficult to characterize. Repeated phone calls contacted only answering machines, staff members who refused to reveal information, or no answers. The physical locations of three practices were visited and there was no information on the exterior of the building and the building was inaccessible in all three cases. Two cases were discovered of the dentist's name having been misspelled in the phone book here, too — a fact unknown to the staff. In six cases, it was not possible to confirm that the dentist named with the practice had a valid license in the state. Two of these were resolved by staff saying that the dentist used a different name from that which appeared in the Department of Consumer Affairs listing. Four remain unresolved.

Results and Discussion

Results and discussion will be presented together under the following headings: (a) characterization of dentists and practices, (b) characteristics of ads, (c) effects of years of experience on advertising, and (d) effects of dentists' status on advertising.

Dentists and Practices

FIGURE 1 shows the types of dentists and practices identified in this population study of dental offices in San Francisco.

There is an unknown number of practitioners who are not members of the San Francisco Dental Society and do not advertise. These are represented by the "?" in the circle at the bottom of

the figure. There are 20 practices listed in the San Francisco phone book for which complete information could not be found. These are fictitious business names whose owners could not be verifed or dentist's names that could not be matched with the listing of valid licenses on the Department of Consumer Affairs website.

Based on the classification scheme used in this study, there were 1,013 dentists in the San Francisco Dental Society. This number is broken down into the following categories: (a) 484 dentists who had listings in the San Francisco phone book and (b) 274 practicing dentists who did not advertise. Together, this represents 758 practicing dentists, 64 percent of whom were known to advertise. In addition, the San Francisco Dental Society included (c) 128 life retired and retired dentists, (d) 64 full-time faculty members in one of the two San Francisco dental schools, (e) 38 licensed dentists who were enrolled in postgraduate educational programs, and (f) 25 dentists who were known to practice outside of San Francisco. Dentists in these last four categories (N=255) were not counted among the advertising practices for purposes of the analyses that follows. No attempt was made to identify dentists in San Francisco, advertising, practicing without advertising, or as faculty members, who were members of organized dentistry with component affiliations in other counties in the Bay Area.

The numbers in **FIGURE 1** are consistent with the California Dental Association's estimate that there are approximately 1,300 dentists in San Francisco. An exact reconciliation cannot be achieved because of faculty and student status, retirement, and practice and residence outside of San Francisco. The distribution of practitioners by school or country of training in San Francisco was similar to the distribution across the state.[9]

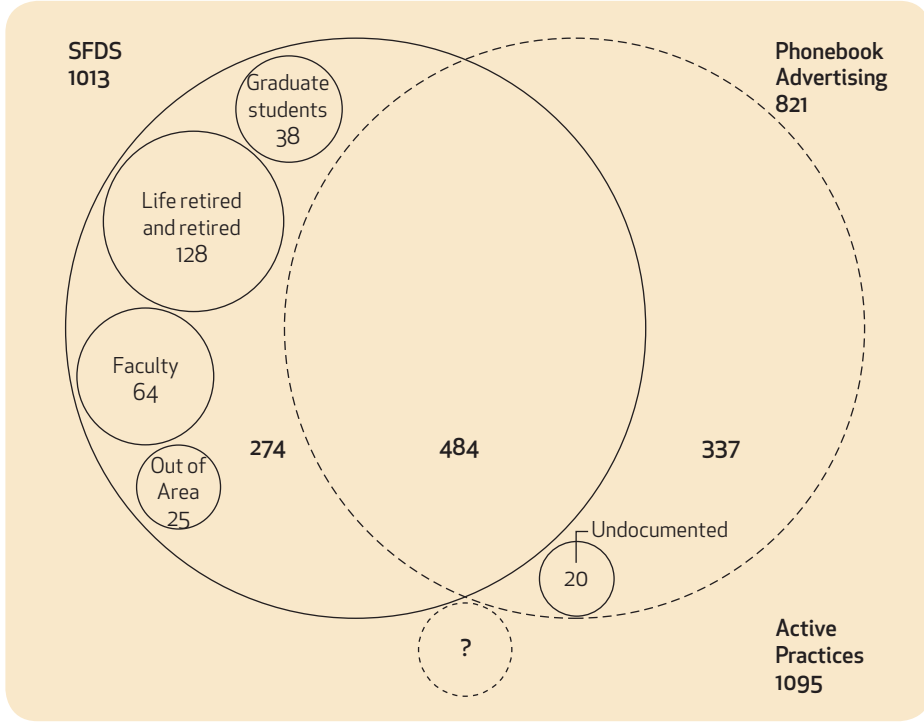

FIGURE 1. Practices and dentists in San Francisco, by type.

Characteristics of Listings

TABLE 1 shows the sizes of phone book listings for the 821 practitioners who had listings and the 274 members of the San Francisco Dental Society who had no phone book listings. Almost half of the group confined itself to the minimal listing of a name, address, and phone number. Another quarter of the group had no phone listing. Only 3 percent of listings were what marketing professionals term "display ads," being more than 1 inch in a single column and having graphic elements. Those dentists who had no phone book listing are entirely from the membership of the San Francisco Dental Society. The code used for the phone book listings can be regarded as a scale of "boldness in representation to the public." A full-page ad, for example, might be considered to be eight times as bold as the simple two-line listing. On that assumption, and considering all phone book listings, members of the San Francisco Dental Society averaged a code score of 1.95 (almost a bolded double-line entry) while dentists who were not members of the San Francisco Dental Society were on average between the plain and bolded double-line listing at 1.56. This difference is statistically significant using the t-test ($t=4.45$, $p<.000$). A more conservative analysis can be performed by classifying phone book entries less than 1 inch in size as "listings" and those an inch or larger as "display ads." When a chi-square analysis is performed on this classification of the data, members of the San Francisco Dental Society are significantly more likely to place ads in the phone book while dentists who are not members of organized dentistry are more likely to place listings ($\chi^2=11.46$, $df=1$, $p<.001$).

Butler and Abernethy's study of 12,000 physicians' phone book listings in 1995 found 46 percent unhighlighted listings of name, address, and phone number — almost exactly the same as the 46 percent in this study.[8] McAlexander, Becker, and Kaldenberg's study of a sample of Oregon dentists found 42 percent basic listings.[6]

TABLE 1

Size of Phone Book Listing by Membership in Organized Dentistry

Code	Description	SFDS		Not SFDS		Total	
0	No listing	274	36%	?	?%	274	25%
1	Name, address, phone	271	36	246	72	515	47
2	Bold name, address, phone	59	8	35	10	94	9
3	Additional line	102	13	43	13	145	13
4	One-inch column	30	4	4	1	34	1
5	One- to four-inch column	12	2	2	1	14	1
6	Two column, graphics	3	<1	5	1	8	<1
7	Half page, graphics	7	1	2	<1	9	<1
8	Full page, graphics	0	0	1	<1	1	<1
		758		337		1,095	

TABLE 2

Features of Phone Book Listings When More Than Name, Address, and Phone Number Appear

	Total	Named Owner	Fictitious Name	
			Registered	Unregistered
"Practice limited to . . . "	42%	47%	23%	30%
Web address	32	26	51	70
Practice location, landmark	26	19	54	50
Cosmetic dentistry	21	16	40	40
Dental procedures, e.g., implants, crowns	20	20	20	30
Pain management, nitrous	13	12	17	20
Financial arrangements	13	9	31	10
Product names (Zoom, Invisalign)	11	8	23	20
Advanced degrees, diplomate status	11	8	29	0
Practice hours, weekend appointments	11	8	29	0
"Credentials," academies, institutes	8	8	11	10
Languages spoken	5	4	9	10

Thirty percent of Yellow Pages entries involved multiple listings, with the average number of multiple listings being 2.3.

Twenty-six percent of the listings contained more than the minimal name, address, and phone number. The information in these listings was coded into 12 categories, with the possibility that larger ads might contain information in more than one category. The distribution of these results is shown in TABLE 2.

Practice Experience

The distribution of years of practice experience is shown in FIGURE 2. The horizontal axis is labeled "year of first dental degree," and that information was recorded from the San Francisco Dental Society Membership Directory for two groups reported separately: those who listed their practices in the phone book and those who do not. The horizontal axis is the proportion of dentists at each five-year period of practice experience by group (2004=2004 through 2008, etc.). The curve for members of the San Francisco Dental Society who list their practices in the phone book is approximately even and highest in the range of 10 to 40 years of experience. Dentists older than that are retiring; few who are younger than that have practices of their own. By contrast, approximately two-thirds of the members of the San Francisco Dental Society who did not list practices in the phone book are within the first 10 years of graduation. (Those members of the San Francisco Dental Society who are enrolled in postgraduate educational experiences are excluded from this analysis.) This picture is consistent with the fact that dentists in the early years of their careers are typically associates or independent contractors and have no practice to list. A small number of members of the San Francisco Dental Society continued to decline to list a practice in the phone book throughout their careers. Some of these are identified by the Department of Consumer Affairs as "employed in multiple locations," others may be semi-retired, on leave while raising a family, a junior partner in a group, or otherwise not engaged in an equity position in a practice. Some established practices prefer to make contact with potential patients only through word of mouth.

The curve for practices of dentists listed in the phone book who were not members of organized dentistry is similar to that of member dentists who listed their practices in the phone book. The age distribution for dentists who list their practices in the phone book was similar for members of the San Francisco Dental Society (23.34) and for nonmembers (23.43),

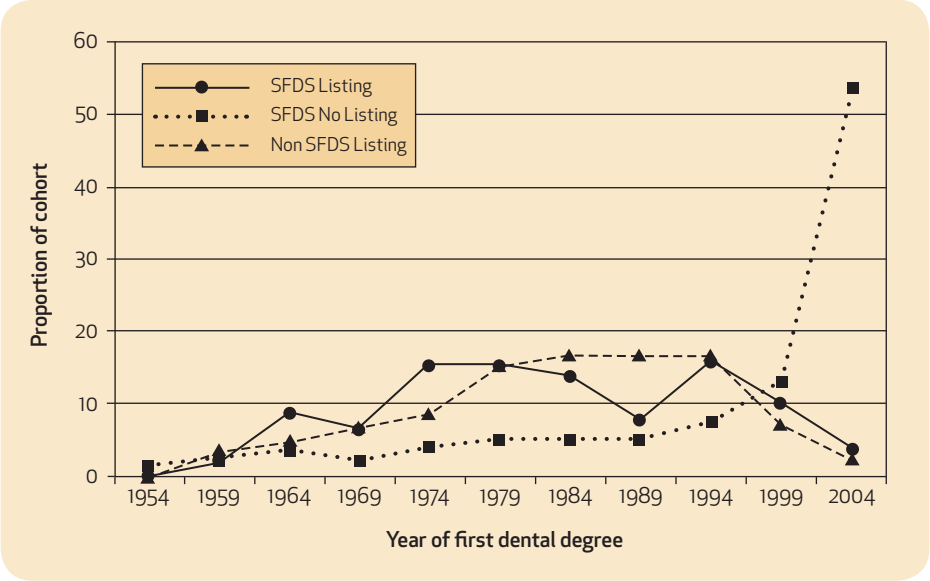

FIGURE 2. Practice experience distributions in three cohorts of San Francisco dentists.

but those who do not list practices and are members of the San Francisco Dental Society were significantly younger (11.04 years of experience), F=38.77, p<.001.

TABLE 3 is a comprehensive listing of the effects of years of experience on various practice characteristics investigated in this study. Dentists with more years of experience were significantly less likely to be members of the San Francisco Dental Society, to list their practices in the phone book, to highlight their ads, to place multiple listings, and to have been disciplined by the State Dental Board. There were few differences in the types of information contained in ads by dentists' years of experience.

Practitioner Status Characteristics

Eleven percent of the practices listed in the 2009 San Francisco phone book were fictitious business names. Such names are listed on the Department of Consumer Affairs website when they have been registered with the State Dental Board. Of the 118 such fictitious business names, 64 (54 percent) were registered. Of the unregistered 54, the owners of 38 (70 percent) were eventually identified through phone calls or by visits to the office. The owners of 16 practices could not be identified.

One-way ANOVA tests were performed on the set of practices classified into three categories: (a) no fictitious name, (b) registered fictitious name, and (c) unregistered fictitious name. A number of statistically significant patterns emerged as shown in **TABLE 2**. In one set of cases, practices with registered fictitious names differed from those without fictitious names and unregistered names. Such practices were more likely to place larger ads and to mention financial arrangements and additional hours of opening in their ads. Another set of patterns appeared separating practices with fictitious names from those listed in the name of the dentist owner. Those with fictitious names (registered or unregistered) mentioned practice location, had websites, mentioned product names in their ads, and mentioned cosmetic dental services. They were also less likely to be specialists.

The Department of Consumer Affairs uses a particular field on their listing of each licensed dentist that appears to confound several categories. In most cases, this field contains an indication of the dentist's home address. In 325 cases, the dentist was described as being a "solo practitioner at a single place"; in 62 cases, the dentist was described as having additional offices. Nine dentists were described as "part-time employees." Twenty-one dentists' names listed in the San Francisco phone book were described by the Department of Consumer Affairs as "deceased" or "canceled."

Generally, there were no differences across this status classification, beyond dentists who were deceased or had cancelled licenses (but still appeared in the phone book) and who had earlier dates of issue for their licenses. Dentists listed as having multiple offices were much more likely to have practices with fictitious names (χ^2=25.39, df=2, p<.001).

Four practitioners were identified by name in the phone book or by the spelling of their name by staff members over the phone whose names did not match any name in the Department of Consumer Affairs web database. It is possible that alternative spellings or changes in name account for some of these mismatches. In two cases, staff members refused to discuss the author's inability to locate the practice owner in the state's database of licensed dentists.

The Department of Consumer Affairs database listed seven dentists as having delinquent licenses (normally meaning late payment of fees or failure to comply with CE requirements). Five dentists were identified as having "cited" licenses and an additional two each were identified as on probation or having served probation. All these were listed in the phone book.

Chi-square analysis was performed on those with delinquent, cited, or probationary and probation-served licenses. It was found that those with troubled licenses were significantly more likely to have fictitious professional practice names (χ^2=45.51, df=1, p<.001) and to have multiple offices (χ^2=4.33, df=1, p<.05).

TABLE 3

Characteristics Associated With Years of Practice Experience

	Yes	No	p
Membership in San Francisco Dental Society	19.11	22.75	.001
Ad information (for listings that contain information only)			
"Practice limited to …"	23.87	24.18	
Web address	23.35	24.37	
Practice location, landmark	23.26	24.31	
Cosmetic dentistry	22.95	24.32	
Dental procedures, e.g., implants, crowns	26.95	23.30	.07
Pain management, nitrous	21.44	24.44	
Financial arrangements	22.12	24.32	
Product names (Zoom, Invisalign)	24.24	24.02	
Advanced degrees, diplomate status	27.10	23.70	
Practice hours, weekend appointments	19.48	24.56	.05
"Credentials," academies, institutes	19.35	24.47	
Languages spoken	24.40	24.03	
Size of phone listing or ad			
No listing	11.13	The only significant differences are among the top three groups. (Other groups are too small to show reliable differences.)	
Name, address, phone	22.68		
Bold name, address, phone	27.00		
Additional line	24.44		
One-inch column	24.03		
One- to four-inch column	28.50		
Two column, graphics	19.12		
Half page, graphics	26.00		
Full page, graphics	12.00		
Additional listings	24.82	18.78	.001
Additional office	21.62	20.07	
Disciplined license	27.12	20.04	.03
Type of active practice			
SFDS, not phone listing	11.04	Sig diff	.001
SFDS, phone listing	24.34		
Not in SFDS, phone listing	23.34		
Fictitious business name			
None	20.32		
Registered name	19.96		
Unregistered name	15.30		

Reflections

This investigation of more than 1,200 dental practices in San Francisco has been an attempt to characterize the way an entire population of practitioners presents itself to the public. It is not surprising that the picture that emerges will be slightly different from research that seeks to confirm traits of practices selected from theory and tested against samples of willing respondents. The understanding that emerges of practitioner experience, the role of material in the phone book, and characteristics of practitioners casts the concept of commercialism in a new light.

The public jokes about Yellow Pages advertisements embarrassing the profession seem out of place, at least in the San Francisco phone book. The overwhelming majority (92 percent) of placements were simply listings of name, address, and phone number of practitioners. In the case of display ads, the additional information that is provided is for the most part useful information about practice location, specialty services, financial arrangements, and hours of operation.

The stories that are sometimes told about young practitioners drifting toward commercialism because of increasing student debt were not confirmed by an analysis of the San Francisco phone book listings. Practitioners who were within 10 years of graduation were very unlikely to have their names appear in the phone book, and when they did, it was more likely to be a listing than a display ad by comparison with their more senior colleagues. The information included in their phone book ads was no different in nature from more experienced dentists. No tendency was found for younger practitioners to mention web addresses more often than the older colleagues did.

What is somewhat troubling about the

young practitioners is their steep decline in numbers following an initial high rate of joining organized dentistry. The retention issue in organized dentistry may not be connected with launching from dental school, but with initiation into practice ownership. Data being considered from publication in the *Journal of the American Dental Association* show nationally that educational debt has remained constant as a fraction (about 70 percent) of an average year's practice net income over the past quarter century.[10] What has changed is the sharply escalating cost of practice purchase, now approaching three times an average year's net practice income.[11]

Finally, the data in this report paint a different picture from earlier studies about how dentists represent themselves to the public. Increasingly, practices show themselves indirectly to the public and professional peers through the use of fictitious business names, many of them not registered with the State Dental Board, and through crafted websites. The practice with a fictitious name is not based on the personal reputation of the practitioner, but on a manufactured image. In a number of cases, the author was not able to pierce the veil of these fabricated practice identities. When he did, it was discovered that they have a greater propensity to cover licensure troubles and more commercially oriented through advertising, emphasizing product sales, cosmetic procedures, financial matters, and location and hours (possibly signaling interest in short-term relationships).

The lesson of the phone book is that young dentists are not drifting toward damaging commercialism; the whole profession is creeping toward an identity that masks the traditional dentist-patient relationship.

As the author looked at the unmarked black facade at an address near Chinatown where a dental practice was supposed to be located, trash swirled around his feet in the wind. There was no way to know what was behind the locked door; twice I had spoken with staff members who were unable to tell me the names of any of the three dentists they admitted worked there. My mind jumped immediately to the recent very high profile American Dental Association meeting in the Moscone Center where practitioners lined up to hear dentists tell about their practices and how much this meeting matters to the annual budget of the association. There is a much broader range of dental practice than is represented in the publications of organized dentistry. The vast majority of the profession is sound. But commercialism is on stage and tends to get the microphone. The other end, the troublesome part, is what is being hidden from the rest of the profession and from the public as well. ■■■■

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David W. Chambers, EdM, MBA, PhD, Arthur A. Dugoni School of Dentistry, 2155 Webster St., San Francisco, Calif., 94115.

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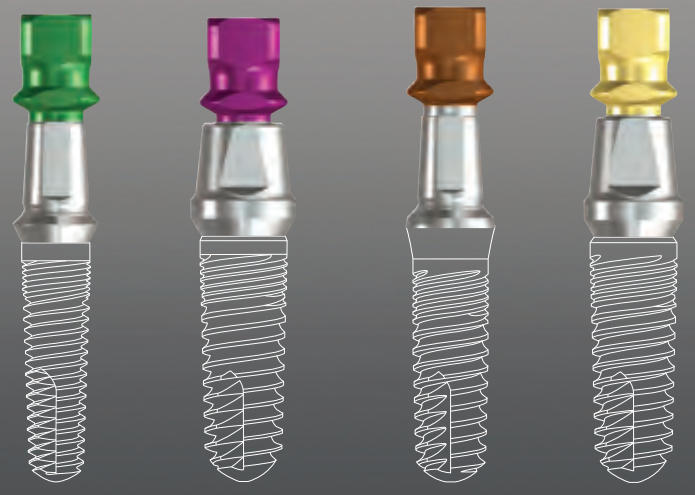

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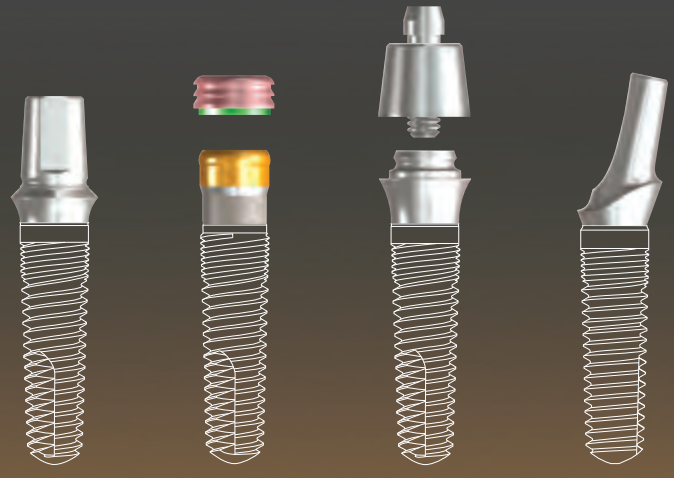

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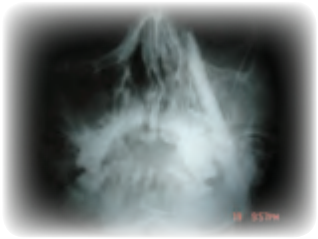

Maxillofacial Penetrating Injury by a Grinding Disc: A Case Report

JAIME HUMBERTO RODRIGUEZ, DDS, AND JAIME SANTIAGO GUERRERO, DDS

ABSTRACT The authors report a rare case of a patient who sustained a penetrating angle grinder broken disc injury to his face, which resulted from a work accident. Evaluation and management are described.

AUTHORS

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Several types of injuries, such as contusions, abrasions, lacerations, avulsions, and those that result in the lodging of foreign bodies within tissues can occur in the maxillofacial region. These are particularly referred to as penetrating injuries and imply the violation of soft or hard tissues by an object that enters the body, usually compromising different anatomic structures.[1,2] The injuries can be superficial or deep, and often occur as result of fights, road collisions, assaults, work accidents, or even self-infliction. Remaining elements include pieces of glass, fragments of wood, knife blades, bullets and arrows, among others.[2-13] The authors present an unusual case of a penetrating facial wound from a broken disc from an angle grinder, and its operative management.

Report of Case

A 27-year-old man was referred to the Hospital Occidente de Kennedy, oral and maxillofacial surgery service, with a facial wound, produced when the disc of the angle grinder he was using at high speed broke and hit him in the lower face. At the time of emergency room admission, he was clinically conscious, with a Glasgow coma scale score of 15, breathing without difficulty, and with stable vital signs. Physical examination revealed an open facial wound of 15 cm length with a grinding disc fragment encased obliquely in the left side, deeply involving the alar base region and extending downward laterally to the labial comisure through soft tissues, accompanied by swelling. Mild active bleeding from the wound edges and left bipalpebral ecchymosis were also present (**FIGURE 1**).

After examination and initial management, which included starting intravenous fluids and control of bleeding, plain radiographs and a computed tomography scan were obtained. These injuries showed a disc fragment lodged in the left maxilla area and the involvement of soft tissues, anterior and posterior walls of the maxillary sinus, and left orbital floor (**FIGURES 2 AND 3**).

Assessment by neurosurgery, ophthalmology, and general surgery services revealed neither a neurological deficit nor a ophthalmic compromise. A

FIGURE 1. Patient appearance at arrival to the emergency room.

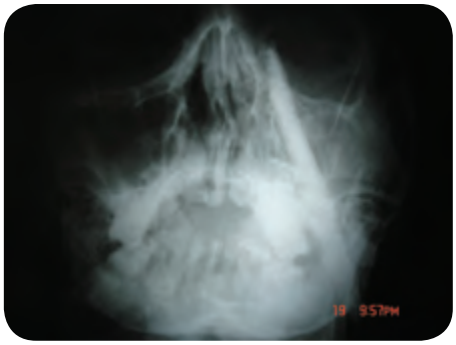

FIGURE 2. Radiograph showing the position of the foreign body.

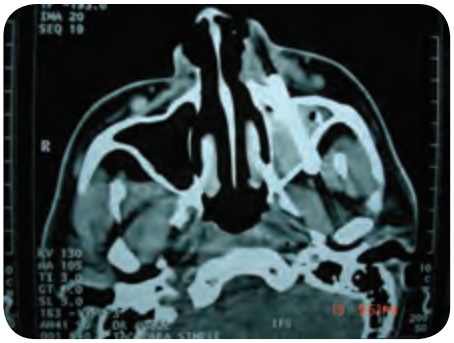

FIGURE 3. CT scan demonstrating the object compromising the maxillary sinus.

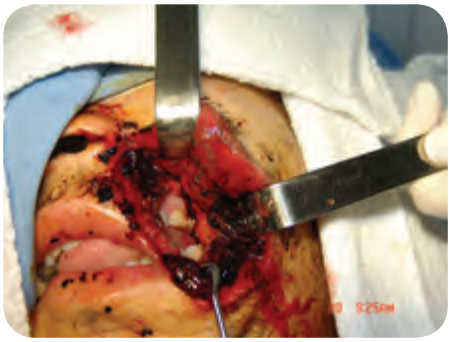

FIGURE 4. Intraoperative view of the defect after removal from the patient.

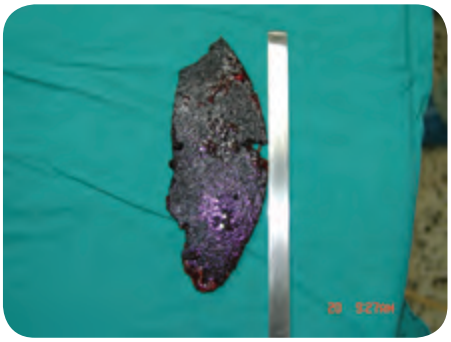

FIGURE 5. Fragment of wheel removed. Note the irregular coarse surface.

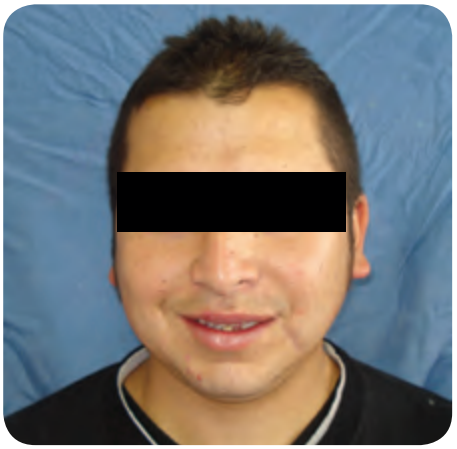

FIGURE 6. Three-years' postoperative photograph showing good functional and esthetic results.

four-vessel angiography ruled out any ongoing or potential vascular damage.

The patient was taken to the operative room to remove the foreign body and repair the tissues under general anesthesia. The surgical procedure consisted of widening the incision, exposing, and withdrawing the broken disc through the entrance wound (**FIGURES 4 AND 5**). Intraoperative exploration of the parotid duct was negative for laceration. Fragments of the maxillary sinus anterior wall were removed and no additional treatment was necessary. This was followed by tissue debridement with resection of ragged edges, profuse irrigation with normal saline, and hemostasis. The wound was closed in layers with Vicryl for the oral mucosa and muscle, and nylon for the skin.

During the patient's stay at hospital, he was kept on IV antibiotics (ampicillin/sulbactam). When he was discharged on the fifth postoperative day, he was given amoxicillin/clavulanic acid and anti-inflammatory therapy (ibuprofen).

The patient's progress was uneventful except for a lightly noticeable paresis of the buccal branch of the left facial nerve, which persisted at at the two-month postoperative visit. Ten sessions of physical therapy improved the deficiency in his facial motor condition and subsequent follow-up examinations showed good cosmetic and functional outcomes (**FIGURE 6**).

Discussion

Although various report state that violence-related wounds are the most common cause of traumatic penetrating facial injuries, work-related accidents frequently do occur.[2,4,5,10-12,15,16] Penetrating facial injuries inflicted by the use of angle grinders—hand-held power tools on which an abrasive disc is mounted and is used for cutting, grinding and polishing—are more common than expected and are a recognized source of serious morbidity.[17,18] A typical clinical scenario is when a disc fragment shatters while rotating during use.[16,18] The main reasons they can occur are human error, machinery failure, and improper use of equipment by virtue of lack of training or lack of instruction. The magnitude and severity spectrum of the wounds produced depends on the penetration depth, entry angle, and the diameter of the wheel used.[10,18]

In order to minimize the risks of injury when handling power tools of this category, general guidelines should be followed, such as regular maintenance, the operator's own adequate training, and the wearing of appropriate protective equipment and clothing.[18]

As in other maxillofacial traumatic injuries, successful management demands

a multidisciplinary systematic evaluation and should be focused initially in airway maintenance, bleeding control, and neurological status. In order to assess the amount of damage, a good knowledge and understanding of anatomy is mandatory, thus it would set the basis for early involvement of other services. Based on the penetrating injury pattern observed, besides the detailed information provided by conventional radiographs and a CT scan, an angiography is highly recommended if clinical symptoms suggest an underlying vascular lesion or a potential one during surgical extraction.[19] Once the extent of the injury is fully appreciated and the patient's general condition is stable, definitive treatment can be rendered.

The choice for this case was to address it early by means of a one-stage management approach, which included the immediate removal of the object and the surrounding necrotic tissues, debridement, and detailed primary closure of soft tissue defects. As a contaminated wound, aggressive pre- and postoperative antibiotic coverage was indicated in preventing secondary infection.

Even though facial penetrating injuries, such as in this case, can have catastrophic effects, a straightforward approach through an accurate-staged sequence based on some established management criteria and critical judgment can ensure satisfactory cosmetic and functional outcomes. ■■■■

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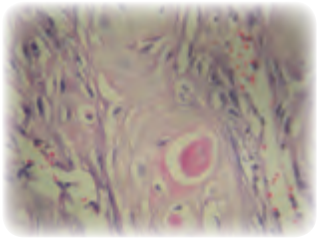

Oral Malignancy — An Uncommon Presentation With Sinus Tract Opening: A Case Report

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ABSTRACT Routine cases of oral carcinomas may present with history of long-standing nonhealing lesion of the ulcero-proliferative type with a rolled or indurated border. They are most often diagnosed accurately based on clinical evidence, radiographs, and histopathology. However, patients can present with confusing clinical features that can pose diagnostic dilemma with other lesions of the orofacial region. This paper presents a case of malignancy with swelling with concurrent sinus openings.

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Squamous cell carcinoma (SCC), the most common oral malignancy, may be defined as a malignant tumor originating from the surface epithelium. The incidence of SCC of the oral cavity differs widely in various parts of the world and ranges from approximately 2 percent to 10 percent per 100,000 population per year. Males are affected more commonly than females and the lesions occur most frequently in individuals over the age of 50. Common sites involved are the buccal mucosa, lip, tongue, floor of the mouth, gingiva, soft palate, and maxillary sinus. Discomfort is the most common symptom in 85 percent of patients. Patients also may present with an awareness of a mass in the mouth or neck, dysphagia, odynophagia, otalgia, limited tongue movement, oral bleeding, and weight loss.[1]

Case Report

A 40-year old female complained of a large swelling associated with a "hole" in her left cheek region for approximately 15 days (**FIGURE 1**). The patient was a habitual tobacco chewer for the past three years, preferring to place the tobacco in the lower left posterior buccal vestibule. The patient also reported of weight loss, loss of appetite, and lassitude for one month. The development of the two percutaneous sinus tracks revealed a discharge of foul-smelling yellowish-brown purulence. The swelling was painful since it appeared and caused disruption of routine work.

Examination revealed a large diffuse swelling over the left midface and body of the mandible. The swelling measured approximately 6 cm x 5 cm with stretched, shiny, smooth skin

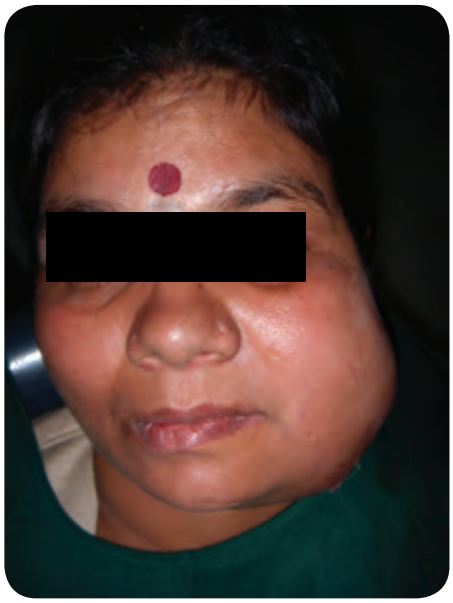

FIGURE 1. Extraoral swelling.

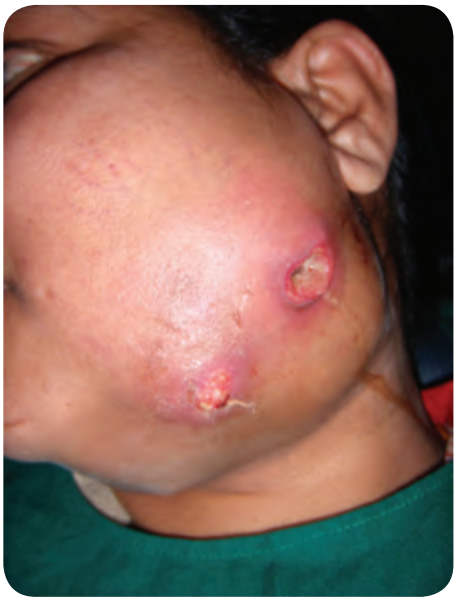

FIGURE 2. Extraoral draining sinus.

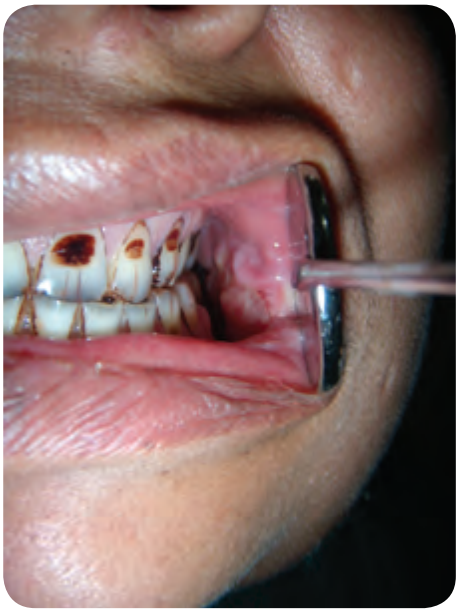

FIGURE 3. Intraoral lesion with restricted mouth opening.

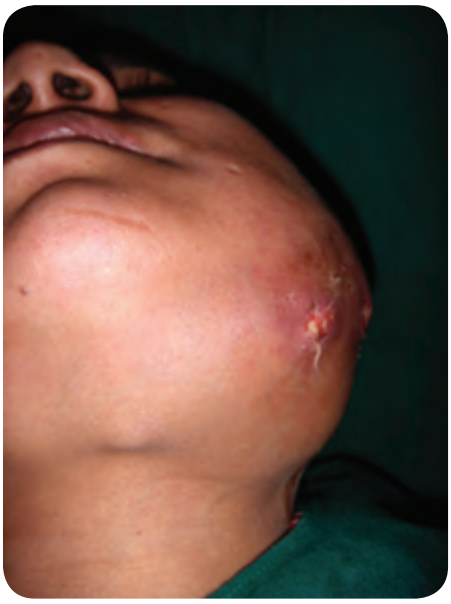

FIGURE 4. Enlarged submandibular lymph nodes.

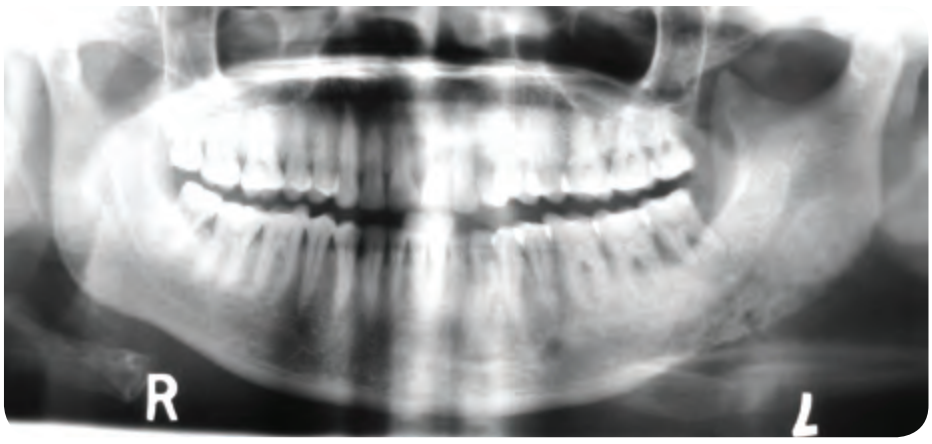

FIGURE 5. OPG showing the osteolytic lesion in region of 37 and 38.

and numerous dilated vessels on the surface. The swelling extended antero-posteriorly from the nasolabial fold to the posterior border of the ramus of the mandible and supero-inferiorly from the ala-tragal line up to the left submandibular region. There were two foul-smelling sero-purulent draining sinus openings measuring about 1 cm in maximum diameter (**FIGURE 2**). The overlying skin was warm and indurated. The swelling was tender with a variable consistency ranging from soft to firm. Bilateral submandibular lymph nodes were palpated (**FIGURE 3**). The nodes on the left side were tender, firm, and fixed, approximately about 1.5 cm x 1 cm in size. The patient had a restricted mouth opening and poor oral hygiene. The left posterior buccal mucosa showed a large ulcero-proliferative growth (**FIGURE 4**).

The patient also had a mild paras-thesia of the left side of the lower lip. On palpation, the lesion was tender and bled easily. Based on the history and clinical findings, a provisional diagnosis of oral squamous cell carcinoma involving the left buccal mucosa was made.

The aggressive growth and the presence of a draining extraoral sinus

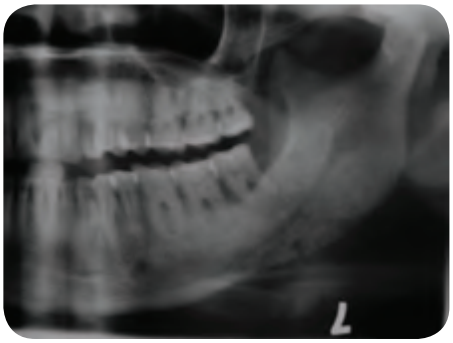

FIGURE 6. Cropped panoramic image of the affected area.

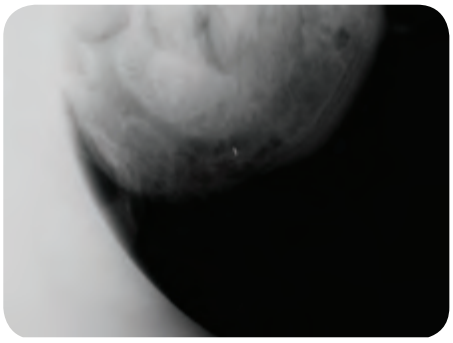

FIGURE 7. Lateral oblique view of the left mandible showing moth-eaten appearance of the inferior border of the mandible.

suggested a differential diagnosis that included fibrosarcoma of bone, chronic osteomyelitis, and deep fungal infection.

The orthopantomograph showed a diffuse osteolytic ill-defined radiolucency around the roots of the mandibluar left molars (**FIGURE 5**). The bone appeared mottled in the region with enlarging marrow spaces and an increased zone of transition into surrounding normal bone. The most significant finding was the irregular moth-eaten appearance of the inferior cortex of the mandible (**FIGURES 6 AND 7**). A radiographic differential diagnosis of a primary invasive gingival carcinoma, fibrosarcoma, and osteosarcoma was made.

The patient was evaluated with routine blood work that revealed a slightly raised ESR. An incisional biopsy was performed on the left buccal mucosa and the specimen was sent for histopathological examination.

H and E stains revealed dysplastic epithelium invading the underlying connective tissue (**FIGURES 8-10**). The invading islands showed the presence of a few keratin pearls, individual cell keratinization, cellular pleomorphism, and increased mitotic figures. The underlying connective tissue was infiltrated with a moderate amount of chronic inflammatory cells and few acute inflammatory cells. Areas of necrosis and hemorrhage also were seen. The histopathology confirmed a moderately well-differentiated squamous cell carcinoma. The patient was referred to a cancer institute for the surgery and radiotherapy of the lesion.

Discussion

Squamous cell carcinoma is the most common malignant neoplasm of the oral cavity. However, it presents in a wide variety of clinical appearances and the nature of the lesion and its prognosis are variable.[1,2]

Etiology

The most commonly suspected environmental etiologic factors in development of oral cancers are tobacco, alcohol, syphilis, nutritional deficiencies, chronic sunlight exposure, trauma, sepsis, irritation from sharp teeth or denture parts, and viruses.[3,4]

Wynder reported that the incidence of oral cancer in a 10-city survey in the United States was 19.4 per 100,000 population for men and 5.2 per 100,000 populations for women.[4] The age of occurrence of squamous carcinoma of the oral cavity is usually in the fourth to sixth decades of life.[1,5,6] Cases have been reported in younger children. Varying sites of the oral cavity are affected by the cancer including the lip, buccal mucosa, the floor of mouth, the palate, and also the tongue. The increasing incidence of oral SCC especially among younger people has been observed in many parts of the world.

Carcinoma of the buccal mucosa comprises about 3 percent of total cases of intraoral carcinomas.[3] It occurs 10 times more in men than women, and primarily in the elderly. Leukoplakia is a common predecessor of carcinoma of the buccal mucosa.[1-3] The lesions develop mostly along or inferior to the line buccal mucosa opposite the plane

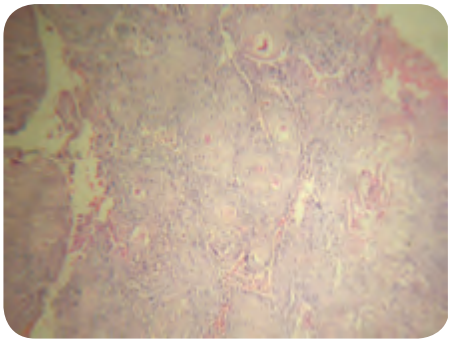

FIGURE 8. Magnification (10x) of H and E stained tissue.

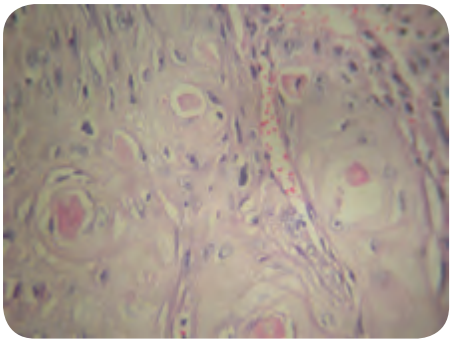

FIGURE 9. Magnification (20x) of H and E stained tissue.

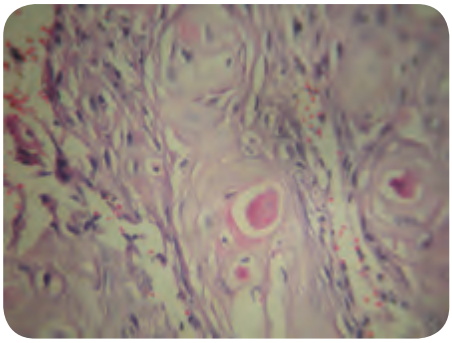

FIGURE 10. Magnification (40x) of H and E stained tissue.

of occlusion. Lesions also are located in the third molar region or at the commissure of the mouth. They tend to be painful ulcerative types with induration and infiltration into deeper tissues.

Some cases present with superficial spread rather than deep invasion. Metastasis from the buccal mucosa is relatively high to the submandibular lymph nodes. The treatment of carcinoma of the buccal mucosa is as difficult as other regions of the oral cavity. In early detected cases, similar outcomes can be obtained from both radiation therapy and surgery. A combined multimodal therapy is indicated in most cases. The prognosis of this lesion depends on the presence of distant metastasis. A survival rate of five years is suggested by Modlin and Johnson; however, the prognosis is better with the increasing age of the patient.[2] ■■■■

Conclusion

Oral squamous cell carcinomas present in a wide variety of clinical variations as is evident as in this case. It is necessary that the clinician be cognizant of the variety of presentations of a very common oral malignancy.

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OFFICES FOR RENT OR LEASE

BAKERSFIELD PEDIATRIC DENTAL OFFICE FOR RENT/LEASE — Long established pediatric dental office. Four plumbed operatories. Newly remodeled. Quiet room. 1,000 sq. ft. office. Tremendous amount of underserviced young families in the area. $1150 a month. Please call 661-871-0780.

DENTAL SUITE IN SANTA ROSA — Renovated 1,500 sq. ft. office. Has some new equipment and furnishings. Very reasonable rent. Contact 707-494-8498 or e-mail jsmuthy@aol.com.

DENTAL SUITES FOR LEASE — SILICON VALLEY — Renovated ortho, pedo, and general space with views in Los Gatos, an affluent community. Close to schools, downtown and freeway. Contact Trask Leonard at 650-282-4620, e-mail at tleonard@baysiderp.com, or e-mail owner at 2340akmeadow@sbcglobal.net.

EXCLUSIVE DENTAL SUITES FOR LEASE — Short/long term lease, state-of-the-art equipment and accommodations. Conveniently located off the 101 freeway. Carlos Vazquez 818-758-3557.

SACRAMENTO/GREENHAVEN AREA SUITES AVAILABLE — 1,200 and 2,200 sq. ft. suites available in Greenhaven area of Sacramento. Contact 916-391-4848.

CONTINUES ON 820

CLASSIFIEDS, CONTINUED FROM 819

SF BAY AREA/VALLEJO PROFESSIONAL BUILDING — 1,000-5,000 sq. ft. existing dental/orthodontic office. Inquiries call 707-994-1218.

OFFICES FOR SALE

MODERN FOUR OPERATORY DENTAL BUILDING IN DUNSMUIR FOR SALE OR LEASE — A beautiful mountain setting in Northern California with hunting, fishing, skiing. Building well maintained. Seller motivated, all terms negotiable. Seller would consider forgiving lease/sale payments for first year to help practitioner establish a practice. Contact seller at mollyruss@sbcglobal.net or Doris Moss Realty, Brett Waite, Broker, 530-926-3807 or brett@mtshastarealty.com.

OPPORTUNITIES AVAILABLE

DENTAL ASSISTANT PROGRAM DIRECTOR WANTED — Program director wanted to develop curriculum/teach at new center in Tarzana, California. Experience required. Call Laura 818-758-3557.

OPPORTUNITY AVAILABLE — NORTHWESTERN WASHINGTON — Seeking experienced dentist for busy, established, rapidly growing, fee-for-service group dental practice. Excellent immediate income opportunity ($180K to $375K + per year) depending on productive ability and hours worked. Secure long-term position. You can concentrate on optimum patient treatment without practice management duties. Newly equipped, modern office with excellent staff and lab services provided. If you are bright, energetic with a desire to be productive, very personable, people oriented and have great general and specialty clinical skills, please fax resume to Otto J. Hanssen at 425-484-2110.

OPPORTUNITIES WANTED

IN HOUSE PERIODONTIST/IMPLANT SURGEON AVAILABLE FOR YOUR PRACTICE — In the Greater San Francisco Bay Area. Implant Surgeon/Bone Grafting/Perio Surgery/3rd Molar Extractions. E-mail bayareaperio@gmail.com or call 617-869-1442.

CONTINUES ON 824

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- **APTOS:** *For Sale* - General Dentistry Practice. Highly desirable location. 2008 Gross Receipts over $1Mil. w/adjusted overhead at 51%. 3-operatories in 1,000 sq. ft. Pano & Modi computerized software. 9-hygiene days per week. Practice operated for past 33 years in same location. Open 5 days a week. Owner willing to work back for new owner 2 days/wk. #14305
- **ATWATER:** *For Sale* - General Dentistry Practice. Gross receipts $177K with adjusted net income of $93,495. Practice has been in its present location for the past 30 years. 1,080 sq. ft. 2-equipped operatories. Owner to retire. #14307
- **CENTURY CITY:** *For Sale*-Office Space, equipment and leaseholds only. Opportunity for low cost startup practice and or satellite. Asking $100K.
- **EL DORADO HILLS:** *For Sale*-General Dentistry Practice. 2009 GR $790,758 adjusted net income of $312K. Intra-Oral camera, Pano, Softdent software, 4-equipped ops. 6-hygiene days. Practice has been in its present location for past 18 years. Owner retiring. #14324
- **FOLSOM:** *For Sale* - General Dentistry Practice. Gross Receipts in excess of 1.5M the past three years. 2009 Adjusted Net of $550K. 2,700 sq. ft. office with 7 ops, Digital, Dentrix, Intra-Oral camera, Laser, 5+year old equipment, 8 days hygiene. Beautiful office, great location. Owner retiring.
- **FOLSOM:** *For Sale* - General Dentistry Practice 2009 Collections $513K. Adjusted net income $164K. 4 ops (plumbed for 5), Intra-Oral camera, fiber optics all ops. Patient base software. Owner retiring.
- **FOLSOM/CITRUS HEIGHTS/ORANGEVALE AREA:** *For Sale* - General Dentistry Practice. Approximately 4 miles from Lake Natomas. This 5 op, 1,700 sq ft office has 8 days of hygiene. Receipts were one million one fifty four last year with $480K adjusted net income. The practice has shown increases every year the past five years. Practice has Panoramic machine and Practice Works software. Practice has been in its present location for 18 yrs of its 29 years. Owner is retiring. #14325
- **GRASS VALLEY:** *For Sale*-General Dentistry Practice. 2009 GR of $307,590 (3 days/wk) with adjusted net income of $105K. 3 Ops. refers out most/all Ortho. Perio, Endo, Surgery. Laser, Intra-oral camera, Diagnodent, EZ Dental Software. Good Location. Owner retiring.
- **GRASS VALLEY:** *For Sale*-This Periodontal Practice is located in a very desirable growing community. Practice has been in its present location for the past 28 years. Office consists of 1,500 sq. ft. 3 ops, Intral-oral camera. Practice has 5 days of hygiene. #14272
- **LIVERMORE:** *For Sale* - General Dentistry Practice. 2009 Collections were $688K with an adjusted net income of $287K. There are 4 ops in this nicely updated 1,082 sq. ft. office space. Dentrix software, 6-days/wk hygiene. Owner has been in same location for 36 years with long-term employees. Owner is retiring. #14326
- **LOS ANGELES:** *For Sale* - General Dentistry Practice: This practice 80% Dentical and has approximately 2000 active patients. Owner has operated in same location for 31 years. 2009 receipts were $709,000. 4-equipped tx rms, laser, Intra-Oral camera Pano and Ceph. Call for details.
- **MODESTO:** *For Sale* - General Dentistry Practice. 5 operatories, 32-years in practice. Gross Receipts $884K w/adjusted net income of $343K. Dentrix, Cerec, and Intra-Oral camera. Owner to retire. #14308
- **NORTH HOLLYWOOD:** *For Sale* - General Dentistry Practice. 2009 GR $642K with adjusted net income of $251K. Office has 3 operatories 1 Addt. plumbed op, 1,350 sq. ft. in a small shopping center, very busy intersection-corner. Intra-Oral camera, laser, Easy Dental software. Owner relocating. #14328
- **NORTHERN CALIFORNIA:** For Sale - Pediatric practice. Owner has operated in same location for 32 years. Approx. 1,760 active patients, 1,160 sq. ft., Panoramic X-ray, Dexis Digital and Dentrix software in this 5-chair office. 2009 Gross Receipts $713K with 48% overhead. Owner retiring. Call for details.
- **OROVILLE:** *For Sale* - General Dentistry Practice. Owner dentist recently deceased. 2009 collections $770K. Very nice stand alone dental building with basement. 7 ops. digital x-ray 5 days of hygiene. Bldg 3,000 sq. ft. basement 540 sq. ft. Temporary Dentist in place. #14310
- **PALM SPRINGS:** *For Immediate Sale* - General Dentistry Practice. 2008 Gross Receipts $900K with adj. net income of $346K. Highly desireable location with 4 ops. Laser, and Intra-Oral camera. 5 days of hygiene. Owner recently deceased.
- **PALM SPRINGS:** *For Sale* - General Dentistry Practice. Fee for Service. 2009 Gross Receipts $282K with adjusted net income of $157K. 1,280 sq. ft., 3 equipped operatories. Intra-Oral camera, Pano, Practice-NEB software. Doctor willing to transition by working 1-2 days a week.
- **PLUMAS COUNTY:** *For Sale*-3 equipped ops. Space available for 4th op. 1,245 sf office in good location. 2009 gross receipts $475K. Practice in present location over 50 years. Owner is retiring. #14318
- **REDDING:** *For Sale*-Owner looking for Assoc. trans. into Partnership w/Buy-Out. GR $1 Million dollars income $436K. 5.5 days hygiene, 2,200 sq. ft. #14293
- **RENO:** *For Sale* - General Dentistry Practice and Dental Building: 2009 Gross Receipts $517K with adjusted net income of $165K. 4 ½ hygiene days/week. 1,800 sq. ft. with 6 equipped ops. (7 Avail). Dentrix software, Pano. Practice has been in its present location for 40 years. Owner retiring.
- **ROSEVILLE:** *For Sale* - General Dentistry Practice. Great Location. 2009 GR $900K with adjusted net income of $300K. 1,975 sq. ft. with 4 ops, 8 days hygiene/wk. Digital, Intraoral camera, Dentrix, Trojan, fiber optics, P & C chairs - all less than 5 years old. Owner is retiring.
- **SACRAMENTO/ROSEVILLE:** *For Sale* - One of many partners is retiring in this highly successful General Dentistry Group Practice. Intra-Oral camera, Digital Pano-Dexis, electronic charts, owner Financing. Call for further information.
- **SAN FRANCISCO:** *For Sale-Patient Base for Sale*-Owner passed away last June and the practice has continued on 4 days a week with an associate. Lease can't be renewed. There are approx. 1,000 acive patients in the practice. The patient base can be purchased at no risk to buyer since the purchase price is paid according to the receipts collected on the patients that transfer. #14312
- **SAN DIEGO:** *For Sale*-General Dentistry Practice. This office is plumbed for 4 ops. 3 ops. are equipped with Promo Equipment. Lease is $2,200 per month. 2009 receipts were $185,645. PPO and Fee for service practice. #14315
- **SAN DIEGO:** *For Sale*-General Dentistry Practice. 6 ops, Intra-Oral camera, Eagle Soft Software. Office square feet 2,300 with 3 years remaining on lease. 2009 Gross Receipts $1,448,520, with an adjusted net income of $545K. Doctor would like to phase out then retire. #14331
- **SAN DIEGO/CITY HEIGHTS:** For Sale-General Dentistry practice. Owner has operated in same location for 12 years. Approx. 1,000 active patients, Panoramic X-ray, Intra-Oral camera, in this 3-chair office. #14321
- **SAN JOSE:** *For Sale* - 3 op office space & equipment only in south valley area of San Jose. Fully equipped including hand instruments. If you are going to start up a practice or add a satellite practice you can save hundreds of thousands of dollars. New lease available from landlord with the option to purchase suite. #14330
- **SANTA BARBARA:** *For Sale* - General Dentistry Practice. This excellent practice's 2009 gross Receipts $891K with steady increase every year. Practice has 6 days of hygiene. 1,690 sq. ft., 5 ops, Laser, Intra-Oral camera, Schick Digital X-Ray, Datacon software. Doctor has been practice in same location for the past eleven years of his 31 years in Santa Barbara. Doctor is retiring.
- **SOUTH LAKE TAHOE:** *For Sale*-General Dentistry Practice. Office is 647 sq. ft. w/3 ops. Practice has been in its present location for the past 26 years. Owner to retire. #14277
- **TORRANCE:** For Sale- General Dentistry Practice: Owner has operated in same location for 20 years. Approx. 1,000 active patients, 1,080 sq. ft., Brican System, and Camsight software in this 2 equipped, 3 available-chair office. 2009 Gross receipts $434K with 38% overhead. Owner relocating. #14320
- **TRACY:** For Sale- Equipment, furnishings, and leaseholds only. In the Central Valley. Fully equipped including 4 Belmont Accutrac chairs, 2 Midmark chairs, 6 DCI rear delivery units, 3 Gendex X-ray units, 1 Soridex digital x-ray processor, 1 Statim 5000, 1 Harvey autoclave. 2,800 sq. ft., 6 Ops. New lease available from landlord.

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Well established, 6 op GP with a great location for the dentist desiring a rural lifestyle in a friendly community. This practice collected over $523,000 in 2009 with amazing growth potential.

LANCASTER
Long established, 4 op GP with an excellent location in a professional complex. Strong patient base developed over 34 years. 2009 collections exceeded $670,000. The seller is retiring.

LOS ANGELES (Endo)
Price Reduction!
4 op, long established endodontic practice. Located in an easily accessible professional building next to a major intersection.

SACRAMENTO COUNTY (Ortho)
Pending
Spacious 6 op, well established orthodontic practice in a full service easily accessible office building. 2009 collections $440,000+.

SOLANO COUNTY
Price Reduction!
4 op (3 equipped) GP with strong patient base. Efficient facility and proven systems.

SAN DIEGO AREA
Multi office opportunity. Contact us for more details.

ORANGE COUNTY COASTAL COMMUNITY - (Perio)
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PRACTICES FOR SALE

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GENERAL PRACTICE IN EL CAJON/SAN DIEGO FOR SALE — Mainly cosmetics, C&B, implants. No pedo, no HMOs. All PPOs and cash. Collected over $650K in the last 3 consecutive years. Reduced price from $525K to $395K. Buy directly from owner. Options of long term-lease or buy the building as well. Call 619-401-0444.

PRACTICE FOR SALE IN BEAUTIFUL MONTANA — Need a lifestyle change? Practice for sale in beautiful Western Montana, contact Dr. Don Hanson at dghanson62@aol.com or call 406-862-6260.

PRACTICE FOR SALE IN SAN JOSE — Fee-for-service, collections $636K. 61% overhead, digital X-rays, 1,200 active patients, 5 ops, great location! Fax inquiries to 408-267-3619 or call 877-778-2020.

STOCKTON PRACTICE FOR SALE — Visible and easily accessible 1,100 sq. ft. practice. Ideal opportunity for a dentist looking to start a practice or for someone looking to expand. Great location, next to shopping. Equipment/charts included. Buyer would take over building lease. Selling dentist is retiring. Contact 209-957-0765 or 209-598-1640.

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3041 SOUTH BAY GP

Well est. & successful practice in gorgeous state-of-the-art facility located in a most desirable area. Modern equipment updated in 2007 and near paperless office. Equipment includes Gendex digital x-rays, Panorex, Cerec & Dexis. 1,653 sq. ft. facility w/6 fully-equipped ops. Approx. 3,000 active pts. Avg. GR for past 5 years 1.6M w/59% overhead. 2010 GR as of Aug. on track for 1.5M+. Quality staff. Long term lease available. Seller will work back with Buyer. This is an outstanding opportunity for the experienced dentist looking for a high quality practice. Asking $1.3M.

3028 NAPA-SOLANO COUNTY GP

Owner retiring from well-est. practice in 1,400 sq. ft. facility with 5 ops. All fee-for-service pts. with great word-of-mouth reputation. 2009 GR $731K+, June 2010 FY on schedule for $771K+ with just 4/doctor-days. Asking $518K.

3035 CONTRA COSTA COUNTY GP

General & Cosmetic high-end private practice in one of the most beautiful shopping malls in northern California. Architecturally stunning 1,070 sq. ft office with four fully equipped Adec operatories and network Centrix computers. Ideal for young dentist willing to accept some PPOs to add income to the practice. Owner willing to help in transition. Currently a 2-3 day/week semi-retirement practice, which can be expanded by adding specialties not performed by seller. Asking $296K.

PENDING

3036 SF SOLO-GROUP

High quality small GP in San Francisco with dedicated and professional patient base. Established since 1985, located in Pacific Heights neighborhood. Asking $100K.

PENDING

3037 PLACER COUNTY GP

Well est. Placer County General & Cosmetic Practice. 6 fully-equipped state-of-the-art ops., in single story 2,700 sq. ft. stand alone professional building. Avg. GR for past 4 years $1.4M+ with 61% overhead and just 4 doctor-days/week. Approx. 1,954 active patients, all fee-for-service. Seller is re-locating out-of-state but will help for smooth transition. Seller owns the building and will provide buyer with a fair market lease or sell the building to buyer. Asking $1,134,000.

3039 SOUTH BAY ENDO

Charming, well established Endodontic Specialty practice conveniently located at the corner of a popular, well traveled intersection, in a commercial & residential neighborhood. 3 ops. 2 fully equipped & 1 plumbed, in a single story professional building with ample parking. 800 sq. ft. Office. 2009 GR $377K+ with 45% net. on a 4 day work week. 2010 GR on track for $374K+ as of June 30, 2010. Asking price $201K.

3030 NORTH BAY AREA PERIO

Owner retiring from well established periodontal practice with excellent referral sources in a 2,411 square foot state-of-the-art office facility with 4 fully equipped operatories and a dedicated staff. Looking for buyer with high ethical standards and great clinical skills. Great location and owner willing to help for a smooth transition. Asking $600K.

3006 MONTEREY COUNTY ORTHO

Est. Ortho practice in 2,668 sq. ft. office with 5 open bay chairs in a professional dental complex. Panorex and Cephlometric X-ray machines. Stable and loyal referral base. Annualized GR as of Oct 2009 are $335K+. Owner retiring and willing to help for a smooth transition. Asking 227K.

3031 - ALMADEN VALLEY GP

Owner retiring from well-est. practice in great location. 3 fully-equipped ops. in 1,000 sq. ft. facility. Avg. GR $500K+ with 4 dr. days & 4 hygiene days/week. All fee-for-service, great upside potential. Owner willing to help for smooth transition Asking $349K.

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BAY AREA

A-817 BELMONT- Surrounded by dental specialties in 2-story Prof. Bldg. 860sf w/2 ops +1 **$210k**

A-8911 SAN FRANCISCO— Don't hesitate! One of the areas most prestigious addresses! 2,073 sf, 4 ops + plumbed for 1 add'l op. **$585k**

A-8941 SAN FRANCISCO– Ready to Move In. Fully Equipped. 2 ops. Plumbed for 1 add'l **$85k**

B-846 OAKLAND- Long-established, fee-for-service practice. 2,100sf w/ 3 fully equipped ops **$325k**

B-902 HAYWARD-Easy Freeway access. Near Busy Shopping Mall. 2400sf, 5 ops office. Gross Receipts over $977k in 2009! **$795k**

B-920 CONTRA COSTA COUNTY-Practice Collecting over ~$60k/month in first year! Investor Owner needs over ~$100k/mo to fit company model, therefore letting this remarkable opportunity be sold. Tremendous potential for growth. 11 ops, 3000sf. **Offered at $620k**

C-7811 SOLANO CO - 2,997 sf w/6 ops + 2 Hyg ops + 1 add'l op! Buy the whole practice for $1.3m or only 50% for $650k. **Call for Info!**

C-869 NAPA VALLEY AREA - Quality, fee-for-service practice. Dental Prof Bldg w/ ~ 800 sq. ft. & 2 ops. Option for 3rd op. **$450k**

C-8901 SANTA ROSA– Residential area. 40+ new pats/mo. Highly Visible! 1291sf & 3 + 1 op. **$475k**

D-842 PLEASANTON –General Dentistry. 1,488sf w/ 2 ops **$295k**

D-845 SAN JOSE - ***Facility*** -Attractive office. Traditional décor. Retail Plaza. 2,240 sf & 5 ops. **$150k**

D-877 LOS ALTOS -Pristine Professional plaza. Office is ~ 2,400sf - 6 ops **2009 Collections - $819k!! Asking only $425K**

D-9091 ATHERTON -Turnkey operation – no construction hassles, equipment purchase. Would cost nearly twice our asking price to duplicate. 969 sf & 3 ops ***Call for Details!***

NORTHERN CALIFORNIA

E-729 AUBURN - Busy retail shp ctr w/excellent signage & good traffic flow. 1750sf, 4ops. Plumbed for 2 add'l ops **REDUCED! NOW ONLY $250k**

NORTHERN CALIFORNIA CONTINUED

E-7121 SACRAMENTO AREA – Largely FFS. 1800sf, 4ops (+2 add'l plumbed). . **$695k**

E-818 SACRAMENTO-Increase the part-time, relaxed workweek & watch the practice grow! Collections $350k+ in '07. 1,200sf & 4 ops. **$315k**

E-881 SACRAMENTO-State-of-the-art Practice with growing patient base. 2,400 sf & 3 ops. Plumbed for 3 add'l. Seller flexible w/ transition plans**$250k**

E-888 AUBURN - Highly esteemed FFS practice. Well respected. Doesn't get any better than this! Very desirable free standing building. Practice offers unparalleled dental care! 1,480sf w/3 ops. **This IS your dream practice! Call for Details!**

E-915 ELK GROVE—Doctor averages 8 patients w/ approx 5-6 new patients monthly. Located in an attractive professional building. 1,200sf / 4 ops. **$650k**

G-751 RED BLUFF/CHICO- Complete remodel ~5 yrs ago. FFS GP. 2350sf /4 ops. Plumbed for 2 add'l. **Practice Offered at $175k / Real Estate $250k**

G-875 YUBA CITY–Estab. 30 + years, GP, FFS, 3575sf /9 ops, great location. **$1.5m**

G-882 YUBA CITY - 3 ops, ~ 850 sf. Thriving Practice! Call for Details! **$190k**

H-634 WEST OF RENO - 1500 sf/ 4 ops, Lease below market value. **$250k**

G-883 CHICO VICINITY – Quality FFS GP. Attractive Professional plaza. 1,990 sf w/ 5 ops **$535k**

H-668 NORTHEASTERN CA–4 ops 1600sf office. 2007 gr rcpts exceed $650k! **$395k**

H-856 SOUTH LAKE TAHOE Over 50 new patients/mo Respected & Growing! 1568 sf & 4 ops **$425k**

CENTRAL VALLEY

I-685 TURLOCK - 1700sf, 7 ops. Rrecently remodeled. Free standing bldg. Mostly Adec Eqpmt. **REDUCED! NOW ONLY $305k**

I-772 *Facility* STOCKTON-Desirable, affluent health care area. 2,140sf/4 ops **REDUCED! $150k**

I-889 MERCED- Heart of town, bustling with activity & foot traffic. 3 ops **$265k**

CENTRAL VALLEY CONTINUED

I-923 MODESTO—1495sf/ 4op+1, Newer, All digital. **$295K**

I-9171 STOCKTON-Long Established, Family Practice near major freeway. 2 story medical prof bldg. 750sf w/2 ops & plumbed for 1 add'l. **$135k. Real Estate also available for $135k**

J-9031 SLO Co– Nestled between Pacific Ocean and beautiful foothills! 1218sf, w/ 4 ops. **$350k Real Estate also available**

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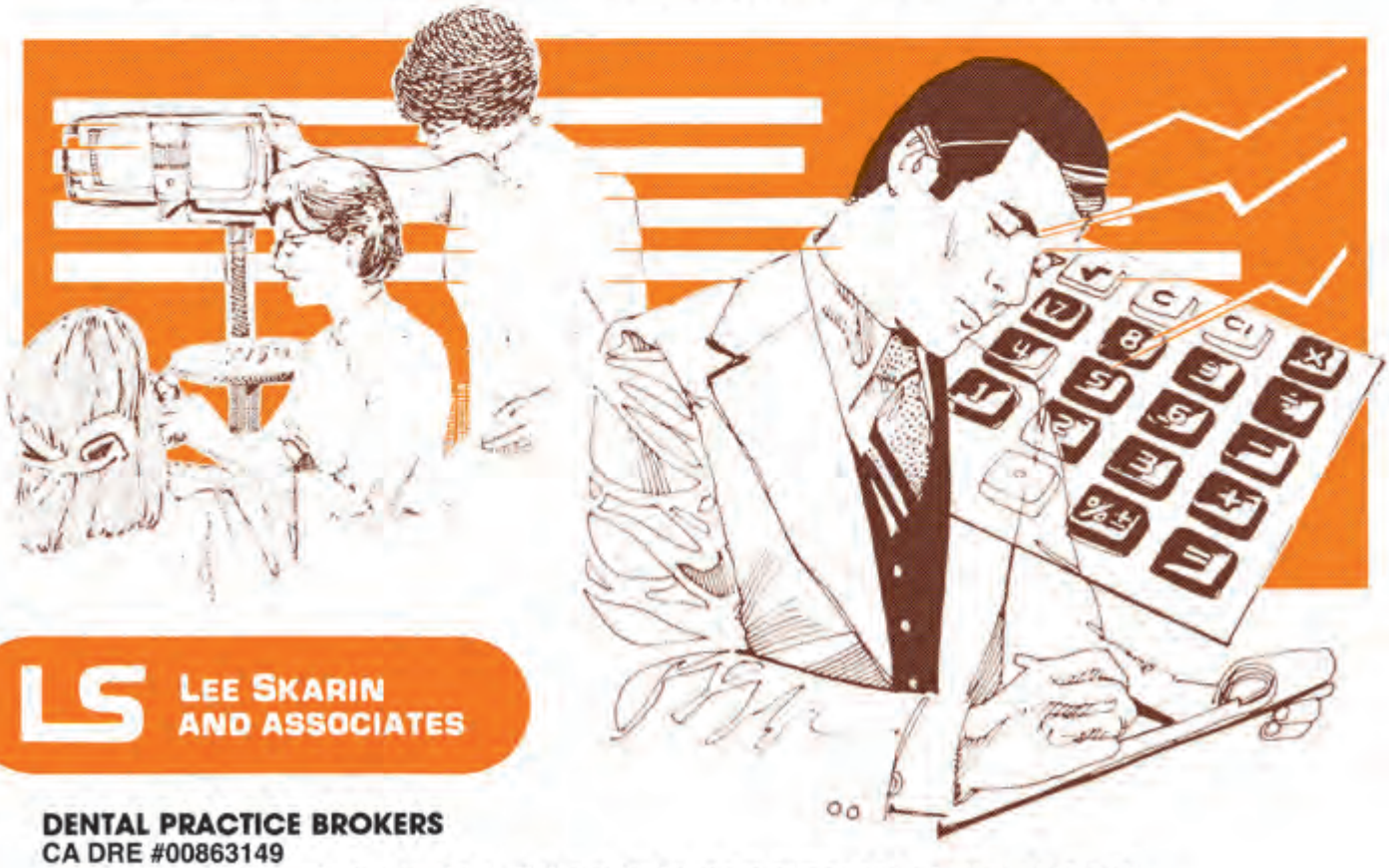

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ADVERTISER INDEX

DR. BOB, CONTINUED FROM 830

Something has happened; however, some inexplicable metamorphosis involving a large portion of the male gender. A fair guess would be that a kid (anyone under the age of 50) awoke late one morning after an extended period of celebration and/or stress. Viewing his bleary-eyed reflection in a mirror, he concluded it was best to forego his normal ablutions until the room settled down.

After 24 hours when he didn't pick up in response to increasingly agitated calls, his inamorata du jour popped in to check things out. Stifling her initial disgust, she must have laid on the sympathy with some ill-founded admiration of his new, macho look. The game was on. His razor, along with his comb fell into disuse and like lemmings over the cliff, men and boys alike embraced the current Scruffy Look.

It is difficult to find any picture of a male in the popular magazines today wherein the guy doesn't look disheveled, unkempt or dissolute and proud of it. Frequently they are joined in the photos with a female dressed to the nines and showing every evidence of long, expensive hours with couturiers and beauty spas. To compliment his au courant head, the guy is wearing a $900 blazer atop jeans distressed at the factory deliberately by specially trained pit bulls formally in the employ of Michael Vick. These sell for upward of $600 and would be disdained by any reputable thrift shop in the nation. His mirror confirms his self-appreciation. You have to ask yourself: why?

Like women who are the first to embrace the latest fashions are usually the first who shouldn't, males contemplating going over to their primitive side should do a bit of self-analysis first. Some men are simply not capable of sprouting a sufficient amount of facial shrubbery to carry it off. Macaulay Culkin, for example, and maybe Johnny Depp essaying one of his alter ego roles, should lose the facial wisps unless they are going for pathos.

Dentists, for the most part, have found muzzling facial hair behind a facemask to be not time-effective and with a comfort level on a par with wearing socks made of steel wool.

On the other end of the spectrum are the guys who develop 5 o'clock shadow within 10 minutes of shaving and if left to their own schedule, would resemble Popeye's nemesis Bluto at the end of the day. Beyond that are the few old-timers like Willie Nelson who have outlived their faces and should probably do little but scrub with a stiff brush and divert attention with a braided ponytail.

The vast majority of men who are currently avoiding like the plague any remote association with the term "clean-cut," follow the lead of Hugh Laurie starring as an MD in the television show *House*.

In this popular version of "I-sleep-under-a-bridge,-but-what's-it to- you?" House is one of very few doctors other than C. Everett Koop and Sigmund Freud to get away with the appearance of having severed their ties with civilization. Granted, it is not easy to always feature a four-day-old growth on your face every day. It must require a certain degree of maintenance to look consistently awful, but frankly, the medical profession, in accordance with its Hippocratic vow to "do no harm," should encourage its members to avoid all manner of the psychological inferences that go along with looking as if you had just been evicted from a boxcar.

Dentists, for the most part, have found muzzling facial hair behind a facemask to be not time-effective and with a comfort level on a par with wearing socks made of steel wool.

Remember this: The ladies who tolerate, and maybe even encourage, the Scruffy Look today, will quickly prove the most attractive thing about fashion is it won't last. Today it might be romantic, a few years ago it was indecent, and a few years hence it will be predictably just tasteless. Gillette, Schick, et al. will still be in business. And House will still be House. ■■■■

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Sharp End to a Hairy Situation

It is difficult to find any picture of a male in the popular magazines today wherein the guy doesn't look disheveled, unkempt or dissolute and proud of it.

Robert E. Horseman, DDS

ILLUSTRATION BY DAN HUBIG

I am a guy. I understand about shaving. Having watched my dad shave for years, I had an appreciation of the necessary tools, accessories and bad words comprehensive enough to essay my first attempt at it.

With a Gillette razor (borrowed) and a can of Burma-Shave that I believed was the ne plus ultra of shaving creams—judging from the number of signs along Route 66 that was our interstate connection with Kansas City in 1934—I was ready.

Emerging from behind the closed bathroom door some 30 minutes later, it became apparent to my concerned parents that I had made up with enthusiasm what I lacked in technique. My father had to dissuade my mother from calling the doctor by explaining to her that it was a guy thing to stem the hemorrhaging before bleeding out by placing small bits of toilet paper over the divots. Pop said he was sorry he hadn't mentioned that the razor strokes should be up and down, never horizontal, but if I ever used his razor again, I would be out of the will.

The rites of passage for a son were pretty much on schedule and except for getting a job and cleaning up my room without threats of sending me to military school in some distant city, they were satisfied.

By age 19, as the downy fuzz gave way to real facial hair, I had mastered the razor to the point that I could negotiate skillfully around my Adam's apple without exsanguination. It became a part of my daily toilette and has remained thus for the past 70 years, complicated only by the appearance of wattles as my chin and neck became indistinguishable.

CONTINUES ON 829

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-- Cindy E. Geers, D.D.S.

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