

Oral Cancer

Screening, Treatment Make Dental Visits “Nonnegotiable”

By Margaret Mulligan

Would it surprise you to learn that you are missing out on the opportunity to perform a clinical service that is “in the public interest, in the highest of dental standards, and has the best potential for the growth of your dental practice,” to quote Michael C. Alfano, D.M.D., Ph.D., Dean, New York University College of Dentistry. You are if you are not routinely providing your patients with a comprehensive oral cancer examination.

The specter of oral cancer “makes the [twice-yearly] dental visit nonnegotiable,” Alfano tells *DOCTOR OF DENTISTRY*. The NYU dental school is one of the founding members of the Consortium for the Prevention and Early Detection of Oral Cancer, created in 1999 (please see sidebar).

SCOPE OF THE PROBLEM

According to www.oral-cancer.org, oral cancer takes the lives of more than 8,000 Americans each year—compared to melano-

ma (7,000 deaths/year) and cervical cancer (5,000 deaths/year). “Actually, 25 percent of oral cancer victims do not smoke or drink,” explains Alfano. “No one knows exactly why that is. Another thing that seems to be happening is that the disease is moving into younger populations; it’s not clear why. Typically, this is a disease of males over the age of 40, but increasingly, younger people and females in their 20s and 30s are getting this disease. All the more reason to focus on this.”

This is where dentists can have great impact. “The last national data that I’m aware of said 7 percent of the American public receives an oral cancer exam each year,” says Alfano. “And yet, almost 70 percent of the American public visits a dentist each year. So only once in every 10 patient encounters are people getting the exam—there is a disconnect. If you were to survey dentists, which has been done by [the] NIH, you would find that dentists report that they do cancer exams in the mid-90s in

Radiograph of an 11-year-old survivor of acute lymphoblastic leukemia. Findings: moderate root stunting all first molars; microdontic second molars and bicuspids; moderate root stunting lower central incisors.



terms of percent. This is a matter of lack of clarity about what the exam really consists of.

“No dentist is trying to ignore this condition and skip the exam that could save a person’s life,” he adds. “What happens is the dentist does the exam, but it is [often] a cursory exam. They don’t palpate the neck, don’t manipulate the tongue so you can see the lateral borders of the tongue; they don’t examine the throat. What we are trying to do is convince the public that [this type of exam] is part of a normal oral examination—we call it an oral cancer examination, but it’s really just an oral examination. And so a more educated public will help drive the profession to do what it is trained to do. This is taught in every dental school in the country. But for some reason, when dentists go into practice, they drift away from doing the very deliberate examination that I’ve described. It takes about 90 seconds, by the way.”

Even so, the profession is making improvements in this area. “We have [anecdotal] information that says we’re doing better,” says Alfano. “But until we do [more] surveys and get concrete data [we can’t be sure.]” That leaves anecdotal data, as this example illustrates: “In New York City, about two years after we started screenings, an area dentist started advertising in those value coupons you get in the mail,” says Alfano. “Not an ideal way to get patients, but it is done by a segment of our colleagues. But the point is, on the right side was a \$25 off coupon for a visit, and on the left side was the free oral cancer exam. When I saw that, I thought, ‘We are starting to penetrate our profession,’ in that this service is a value that our patients seek.”

POST-CANCER ORAL CARE

For young patients, the good news on cancer is that 70 percent or more of children who develop cancer during childhood can now be cured. The downside is that long-term childhood cancer survivors—and their caregivers—are finding that they must deal with a host of “late effects.” Dentists may see patients who’ve survived childhood cancer who present with second malignancies of the head and neck, gingivitis and periodontitis, increased caries and abnormalities of the teeth and craniofacial structure.

Susan C. Kaste, D.O., pediatric radiologist at St. Jude Children’s Research Hospital in Memphis, TN, focuses on dental abnormalities. She recently conducted a study that showed high rates of root stunting, microdontia, hypodontia, taurodontia, and over-retention of primary teeth among children who were treated for acute lymphoblastic leukemia.

In an interview with *DOCTOR OF DENTISTRY*, Kaste said some of the things dentists should look for include “primary disease or, potentially, a second malignant neoplasm. Look for evidence of a new mass, or unexplained tooth loosening, which could reflect a metastatic lesion that does not seem to be caused by another dental problem. I would also flag any unexplained pain the dentist can’t identify.”

ORAL CANCER CONSORTIUM

The Consortium for the Prevention and Early Detection of Oral Cancer was formed in 1999 by the dental schools of Columbia University, New York University, the State University of New York at Stony Brook, and the University of Medicine and Dentistry at New Jersey, along with corporate and other sponsors. According to Michael C. Alfano, D.M.D., Ph.D., Dean of NYU’s school, the consortium played an important role in bolstering the ADA’s interest in this issue. “The ADA needs to be careful when it takes an issue on,” he says. “I’m sure one of the things the ADA considered is the issue of liability, especially in terms of past failure to diagnose. In the New York area, this hasn’t happened; there has been no rash of lawsuits because dentists hadn’t been doing this examination. That helped contribute to the ADA’s own agenda, which we fully support.

“I believe we are a couple of years away from a national oral cancer screening day,” he adds. “Next year [April 2004] we hope to link the event with four dental institutions in the Boston area. There’s another group in the Southeast—primarily physician-driven—called the Yul Brynner Foundation. We worked with them this year; we changed our screening date [from October 2002 to April 2003] to coincide with theirs. We don’t care who gets the credit, we just want this to become common practice in dentistry. The interest of the ADA and a school in Southern California—which I believe is also going to do screening this spring—puts us in a position to really start doing this at a national level.”

For more information, check out www.oral-cancer.org.

THE IMPORTANCE OF HISTORY

The most important aspect of caring for this patient population is the patient history, says Kaste. At the St. Jude clinic, “When our kids are discharged, they are given an abstract summary of everything that transpired. More of the cancer institutions are doing similar things. I think it’s very important, especially as we transition the childhood cancer survivors to the local clinical environment. Those healthcare providers need a decent history. Part of it is our responsibility, part of it is the responsibility of the kids and their parents. I think history is the most important thing.

“Second to that, know the latent dental toxicity—or really, any organ toxicity—related to the childhood cancer,” she adds. “As far as screening, this is not really an issue, not that I know of. When the dentist looks at the teeth, look for some of these toxicities, such as the root stunting, which they may not [be able to] see. They are going to see that the microdontic teeth will [not look right]. I think just knowing what the changes are and having the history is 90 percent of the battle.

“Our dentists are very integrated into the treatment here,” she says. “As an example, before they go to have bone marrow treatment, most of our patients are seen by the dental service to see if there are any infections, caries, or whatever. If so, these are taken care of by the dentists before the child becomes immune-deficient. They help the patient with any pH changes; a dentist is best capable of taking care of that.

“Also, the dentist may have to see some of these patients more often than the conventional every-six-months regimen,” she says. “The patient’s oral health is in a more tenuous position. Some of these kids still go on and smoke. Patient education as to the risks may have to be even more strongly emphasized in this patient population.”

It’s a potent message for all young people. And in the general patient population, there is more emphasis on examining what may at first appear to be innocuous lesions. Says Alfano, “There is an ADA campaign that is just launching to emphasize that fact. It talks about young people, not just older people and smokers. The goal is to address what had been [seen as] innocuous lesions, which in some cases were precancerous lesions. There’s a new technique

BRUSH BIOPSY

Brush biopsy is noninvasive, explains Michael C. Alfano, D.M.D., Ph.D., Dean, NYU dental school. “Here’s the dilemma: you examine the patient. You see what looks like a minor irritation, a red patch in the mucous membrane. Then you say, ‘Well, it’s probably an irritation from that tooth, or they bit their tongue. We’ll have to keep an eye on it.’ It’s not something where you would anesthetize the patient and do an invasive procedure. This discourages the dentist from checking those lesions, because the vast majority—about 95 percent—are benign.

“The brush biopsy liberates the dental professional. It is a round brush at the end of a thin plastic stick. The dentist twirls that brush on the lesion, and picks up cells from the patient. The cells are distributed on a slide and sent [out for evaluation]. We have used tongue scrapings, but those were just a morass of cells on a slide. The magic of this new technique is that cells are screened first by a computer that uses ‘Star Wars’ technology. A computer that is a neural network is ‘trained’ to identify cellular patterns, in which the nucleus of the cell is larger relative to the overall size of the cell. This computer will look at 200,000 cells and show the oral pathologist the dozen or so most suspicious cells.

“It adds a level of precision that makes a substantial difference in the value of the test,” he says. “And so those tests can be available in a couple of days, via e-mail back to the dentist. It gives the dentist something actionable, as opposed to documenting in the chart that a lesion needs to be checked the next time the patient visits.”

called a brush biopsy (please see sidebar) and there are other diagnostics that are moving forward in the profession to make it easier to identify these lesions.”

TREAT OR REFER?

Whether to treat or refer “depends on the individual dentist and the training he or she has,” says Alfano. “For example, if [a brush biopsy] is done in an oral surgeon’s office, and it’s an early lesion, it is quite possible, even probable, that this is treated with primary excision of the lesion. They may consult with an oncologist and a hospital tumor board and so on, because that is the venue that oral surgeons operate in, but it would likely not go past that.

“Then we go right on to cancer managed by oncologists, by maxillofacial surgeons or general surgeons, if there is a neck dissection, for example, where the metastasis has gone to the lymph nodes in the neck. Some oral surgeons could do that, but physician-surgeons would do that as well. When it is in that stage, typically there is a follow-on treatment with radiation, and sometimes chemotherapy. That is evolving. Then the dental profession gets back in, the resective surgery, the reconstructive surgery, whether it be through the oral surgeon or through the maxillofacial prosthodontist. These are the people who make the eyes, ears, things of that nature, to replace a hollowed-out area. The lower jaw—reconstruction can be very difficult. The profession is involved all the way through, but sometimes the primary care migrates to the physician but comes back to the dental professional.”

VALUE OF SCREENING

“Right now,” says Alfano, “the majority of oral cancer is still diagnosed by physicians. That’s because it is diagnosed late, when people are symptomatic. People have a lump in their neck—they don’t visit a dentist for that—that’s a bad sign as far as oral cancer, in that it has metastasized.

“The key purpose of the screening day is to educate the public to the value of a dental examination,” he adds. “It compels the dentist to do the exam. We think it’s a win all the way around. It elevates the stature of the profession. It makes a visit to the dentist nonnegotiable. My wife goes for a Pap smear and a mammogram [because] she understands its value. We need to make a dental examination equally valuable. Because there are conditions—such as squamous cell carcinoma—which are equally deadly if you have them. Yet no one ever talks about going to the dentist for cancer screening. It’s always for cleaning. And there is nothing wrong with that. But I think there would be something very right with the idea of, ‘I’ve got to make at least an annual visit to the dentist, because she does that exam...’” ■