

## Caries confusion confounds

If it weren't bad enough that G.V. Black's cavity principles have been replaced with kinder, gentler angles, or that building up preps to ideal form has been deemed "baseless," or that the concept of retention has diminished in stature from prep to prism, it seems we've now entered a period of caries confusion. Despite a decline in the disease that has plagued man since antiquity, we seem to feel less and less secure about it as time goes on—or so the recent literature would lead us to believe.

For example, the June 1993 issue of the *Journal of Dental Education* tells us that the Europeans are looking into the issue of caries diagnosis—literally—abandoning the venerable explorer in exchange for a dry and isolated tooth surface to gaze upon in diagnostic contemplation. Here in America, according to the recent literature, we're still probing, but borrowing a philosophy born of Sir Edmund Hillary in managing every groove and fissure with some form of plastic or metal simply "because it's there."

The proliferation of restorative materials has turned meat and potatoes dentistry into fast food and salad bars. TEMP, PREP, BOND, ETCH, and SEAL are the four-letter words of a growing frustration when it comes to what to do with tooth decay in the 1990s. That heavy metal glimmer that once dominated our pediatric dentitions and brought us a sense of satisfaction has been replaced with the ubiquitous substance so much a part of the 20th century—plastic!

The recognition that dental caries isn't the disease our parents knew is actually a welcome step forward, but like all change, it doesn't come without some often difficult readjustment at almost every point along the health education and delivery continuum. I find it more difficult to teach students about tooth decay, that once reliably relentless and recurrent arch villain that now teases us with white spots, lures us (often needlessly) into grooves, and preys on the roots of elderly incisors, once thought well past its ravages.

I'm also not convinced that we're preventing dental caries with all of our interventions. Are patients caries free because of frequent office visits, topical fluorides, and preventive education in my office or because of "foodstuff fluorides" gotten from regular visits to the supermarket and a daily dose of fluoridated dentifrice? The venerable bite-wing radiograph whose subenamel radiolucent cone of decay once ominously but reliably, pointed to the pulp now can't always be counted on to predict caries progression.

The real battleground of caries confusion is the growing field of "risk assessment," which attempts to link microbial populations, socioeconomic status, and a host of

other factors into a clinically useful tool to predict one's susceptibility to dental caries. A valid and reliable method still eludes individual patient application and the best predictor continues to be the patient's previous caries experience; an indicator of disease severity about as reassuring and clinically useful as a flat EEG!

Before all the confusion dissipates, as it eventually will, we'll see evidence of it in daily practice:

- Pediatric dentists being chastised for overtreatment by insurance companies when we crown primary teeth rather than use a sure-to-fail amalgam, or for undertreatment by patients and colleagues when we "watch" incipient decay in infants with our "fluoroscope" of nonsurgical approaches
- Inappropriate radiographs to follow lesions going nowhere
- Continued institutional and public de-emphasis of the disease as mainstream populations experience its retreat while the underfluoridated and underserved continue to feel its pain.

I hope that out of today's seeming confusion will come advances in understanding the disease and its changing face. Risk assessment will eventually find and wed predictability! Noninvasive management of early caries will gain the same legitimacy as restoration so that "wait, educate, and fluoridate" will as aptly describe what we do as "drill and fill." It's also safe to predict that plastic will someday soon enjoy the same longevity in an intraoral restoration as it does in a landfill! Caries diagnosis will go high tech, probably using devices not even conceivable today.

So, if you share my view of the confusion about dental caries of late, take heart. Don't throw away that explorer and handpiece, there's still a lot of tooth decay to be treated and we're still a long way from facing up to it with only a laser and prescription pad. The disease has changed (and not simply declined) and the changes have finally gotten the attention of the scientific community. This can be the first step in a more realistic dialogue. For the last few years, all we've heard is that dental caries has declined—an observation true for some, not so for many more. The more complete message is that the disease has changed. This realization will ultimately affect all of us, including those 20% or so of children and adults, who despite the decline, still suffer from the worst of man's oldest disease.

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