Spectra's Digital Explorer Benefits Your Patients and Your Practice

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The diagnosis of caries has been an inexact science for many years, and the vast majority of practitioners around the world have made this diagnosis by utilizing their eyes and explorers. The common perception has been that if an explorer sticks into a pit or groove then the tooth must have caries. Thankfully, the vast majority of time that an explorer sticks into a pit or fissure, clinical decay is present; however, studies have documented that explorer detection alone can miss early areas of decay. Unfortunately, when these areas are missed on clinical examination, patients are forced to have larger restorations placed at a later date. In today's world, caries detection technology can identify caries non-invasively at an early stage and allow practitioners to actively manage the disease process through surgical or chemical intervention. One such technology is Spectra by Air Techniques.

Spectra is essentially the Doppler radar of dentistry. The technology emits has a high-energy blue violet light that stimulates the metabolites of cariogenic bacteria. Once the tooth is scanned an image appears showing both areas of health as well as areas in which caries may be present. The severity of the issue is depicted both in a numerical as well as a color scale. Areas of green and low numbers represent health, and areas that appear red to yellow and have a higher number represent areas where issues are present. This scale is simple, and patients easily understand that green is good and the color of fire means there is an issue. The technology offers an objective medium to aid in diagnosis and almost acts like a second opinion.

Our practice began using Spectra nearly two years ago and this technology has had a clear return on investment. In a co-diagnosis model, our hygienist will scan our patients towards the end of a hygiene appointment when the surfaces are free of debris. Any images that show concern are placed on the monitor for the doctor to review with the patient, and a course of active management is presented. In the first 30 days we experienced roughly a 12% increase in treatment acceptance relative to traditional intraoral images. In a relatively small practice, this has translated to three additional direct restorations per week or roughly $2,500 a month in additional revenue. Equally important, when a patient chooses not to pursue treatment, the areas can be tracked and growth can be monitored digitally. Most recently, our practice has engaged in a customized recall program where the patient's image(s) is/are e-mailed to them if they have not scheduled treatment within a reasonable time frame. This personalized message has been far more effective compared to traditional generic recall postcards.

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Patients today want tangible evidence that issues indeed exist, and the Spectra caries detection technology allows for this to occur. It allows the doctor to present conservative treatment options, yet maintain profitability for the practice.

About the Author: Dr. Parag R. Kachalia of San Ramon, California, is an Associate Professor and the Vice Chair of Simulation, Technology and Research, and is a team leader within the University of the Pacific's prestigious complex and aesthetic rehabilitation program. He is a fellow of the American Dental Education Association's Leadership Institute, researcher, as well as a published author in the areas of dental technology, digital diagnostics, contemporary fixed prosthodontics, and financial management.