Enhancing Your Practice With the Magnifying Video Scope

INTRODUCTION
Do you sometimes feel that you are “bending over backwards” for your patients? Many dentists have experienced back pain, and in fact, PubMed has 96 articles on “Back Pain in Dentists.” Why? Because of the intricate work that is demanded of us in our field of dentistry. There are magnification aids that can help us in our performance of dentistry while sitting in an upright position, affording better ergonomics with improved operator comfort. There are specialized devices that allow dental procedures to be done without having to be bodily over the patient with the head bent down in order to see into the oral cavity. In this article, we will take a look at a couple of magnifying video scopes that can assist both the operator and assistant in their daily work.

The use of the microscopes in dentistry was conceptualized by Dr. Harvey Apotheker in 1981.1 “The newest addition to vision was conceptualized by Dr. Harvey Apotheker and assistant in their daily work. The use of the magnifying video scope (MVS) ensures that the dentist and assistant can work longer hours with less bodily stress.

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The use of the microscopes in dentistry was conceptualized by Dr. Harvey Apotheker in 1981.1 “The newest addition to vision enhancement…in dentistry is the operating microscope. In some medical subspecialties—such as otolaryngology, ophthalmology, plastic surgery, and neurosurgery—extensive microsurgical training is required to perform procedures at acceptable standards of precision.”2 As of 1998, the American Academy of Endodontics requires that all postgraduate endodontic students from accredited programs must become proficient in the use of the microscope.2 There are many advantages of the magnifying video scope and the use of captured images for our everyday practice of dentistry: ergonomics, treatment outcomes, communication and documentation, and education.

BEETR ERGONOMICS
The use of the magnifying video scope (MVS) ensures that the dentist and assistant can sit upright in a “neutral (and) balanced posture which has been shown to help prevent ergonomic problems (that) seem to be an occupational hazard” (Figures 1 and 2). Using the MVS reduces tension, fatigue, and stress of the lower back and neck muscles.2 Longer procedures can be performed, and the dentist and assistant can work longer hours with less bodily stress.

One of the newest devices, the Explorer (CamSight) (Figure 3), has many advantages over typical microscopes used in dentistry.

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cation is with the patient and/or parent. Just as digital radiographs have allowed magnified images giving better views of the teeth and supporting structures, so does the magnifying video scope when used with a computer monitor. As a pediatric dentist, one of my challenges is to communicate with the patient's parents. The magnifying video scope allows me to illustrate various procedures either as individual digital photographs or videos. By depressing a foot pedal one can take and record these images for diagnostic and educational purposes. Many of my special needs patients, of all ages, love watching their dentistry performed on the computer monitor (only nonthreatening procedures are shown to our patients) (Figure 7). I use the MVS for my autistic patients as part of their conditioning program to allow them to watch the dental procedures so that they will see what's happening in "real time." I have used the live videos to illustrate tooth brushing and flossing techniques for the parents and children. Our office’s Web site (kidsmyl.com) has 2 videos to help introduce our new patients and their families to our practice; one video is on the “First Visit,” and another is on “Laser Dentistry.” These are excellent behavioral and practice management tools, in addition to helping us educate our patients and parents about our practice/practice philosophies.

The third area of communication is in the areas of treatment planning and documentation. With the MVS, computer software that one has, storage of these images is possible in the patient's electronic chart.

The fourth area of communication is the use of the digitally captured images for a consultation. In today's world of cyberspace, I have had dentists send me e-mailed questions and photos from literally around the world. What a great tool we now have to capture magnified images in seconds, and then to send them in microseconds to other dentists throughout the world.

THE MVS IN DENTAL EDUCATION

The author has used video clips in his lectures for many years that enhance the educational tools that are available. These videos can also be sent live via broadcast teleconferences anywhere in the world or archived for future educational programs. These videos can be transferred to DVD, edited, and utilized for patient and/or dentist education. The Magnifying Video Scope offers the dental educator to use the digital images and videos as an educational tool. The author also utilizes the Explorer for his over-the-shoulder presentations at his office.

SUMMARY

The magnifying video scope (such as the Explorer and the MagnaVu) allows the dentist and team to provide quality dentistry in a more comfortable position, for longer periods of time. This is especially important for complex surgical and extensive restorative/aesthetic cases. The procedures that would be enhanced via the MVS include diagnostic, preventative care, restorative, periodontal, endodontic, orthodontic, implant, and laser dentistry.

References

Disclosure: Dr. Margolis receives honoraria for lectures from CamSight and honoraria and products from BIOLASE Technology.

Dr. Margolis received his BS and DDS from The Ohio State University and his certificate in pediatric dentistry from the University of Illinois College of Dentistry. He is a clinical instructor at Loyola University's Oral Health Center and an adjunct clinical assistant professor at the University of Illinois College of Dentistry. He has lectured internationally and has received a Mastership from the Academy of Laser Dentistry. Dr. Margolis has contributed articles to both lay and professional journals. He is the author the book Beautiful Smiles for Special People, which is a course manual for dental personnel treating the disabled patient. He is co-author of a book, Pediatric Laser Dentistry, to be published by Quintessence in 2010. Dr. Margolis is in full-time private practice of pediatric dentistry in Buffalo Grove, III. He can be reached at kidz-dr@comcast.net.