‘Avatar’-inspired session shows clinical images on big screen

By Robert Selleck, Managing Editor

When Samson Ng, DMD, went to see the 2009 blockbuster 3-D film “Avatar,” his response was a bit different than that of most other theatre goers: He started thinking about oral lesions. Or, more accurately, Ng found himself thinking about how he could use similar theatre-quality 3-D imagery to improve the level of care he was providing to the patients he sees as a certified specialist in oral medicine and pathology in Vancouver.

From the clinical perspective,” Ng said, “it’s easier for me to keep track of changes in the lesion with 3-D. It actually helps me to see things better than with only a 2-D view. It’s a much better way to capture the morphology or the topographic appearance of the lesion. When I look at the lesion in 3-D, I’m able to appreciate the full extent much better.”

Five years ago, before his “aha moment” while watching “Avatar,” through his movie-house 3-D glasses, Ng had already developed strong photographic visualization skills. But he had occasioned by the number of cases that had been referred to him over the years. After “Avatar,” Ng started researching 3-D photography. Information was bountiful, until it came to his specific challenge: applying the technology to clinically capturing 3-D images of lesions in often-difficult to access areas of the mouth.

In the beginning, there was a lot of trial and error, especially with the visual-effect projection, mathematical equations and biomedical engineering needed to get the “right-eye” and “left-eye” images correctly capture and then merge into perfectly clear, perfectly focused real-world depictions of lesions. Another big challenge was figuring out exactly how the lighting needed to be set up — and setting it up quickly in the clinic.

But Ng got better fast, always ensuring the process was virtually invisible to the patient in terms of never requiring any greater time or inconvenience than his patient in terms of never requiring any greater time or inconvenience than his 2-D office visits. His use of 3-D instead of 2-D on about half of his cases — whenever he thinks an outcome will benefit from having a 3-D perspective as part of the diagnostic record.

Today, five years later, his amateurish beginnings have evolved into a sophisticated process of 3-D documentation, and he has amassed a stunning archive of super-high-definition 3-D images depicting a vast array of lesions at multiple stages of development.

Ng will share a small fraction of his collection in a presentation here at the Pacific Dental Conference on Friday, with “How Much Do I Know About Lumps and Bumps in the Mouth?”

For the majority of attendees, C.E. credit is given for general attendance (maximum of five hours) and hour-for-hour credit for individually attended courses — and reaching a new record of 12,200 participants in attendance at the 2013 meeting.

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It is the responsibility of each individual to submit his or her own C.E. to the applicable provincial authority. Be sure you are scanned in and out of every session.
Pediatric restorations can be beautiful

Dr. Carla Cohn delivers practical guidance for dental teams that want the best for their youngest patients

By Robert Selleck, Managing Editor

Dr. Carla Cohn, DMD, of Winnipeg, Manitoba, describes her two PDC courses “fast-paced and full of different approaches to both restorative and preventative procedures for children.”

At an international lecturer on pediatric dentistry, Cohn has more than 20 years of experience in children’s dentistry and is a clinical instructor at the University of Manitoba.

Dr. Cohn will present two PDC courses today, one restorative and the other preventive. “I want my audiences to come away with practical procedures to adopt into their own clinic,” she said. “My goal is to be able to introduce and to share procedures, techniques and materials to help improve the quality of the services that we deliver to the kids in our practices. I include many clinical examples and many procedural videos.”

Cohn answered some questions about the courses prior to the conference.

Can you provide a brief overview of what your sessions are about?

The restorative course will cover everything from basic everyday practices to make simple intraoral restorations successful in a variety of situations, to pulpotomies, to full coverage aesthetic options. The preventative course will provide many different alternatives for prevention and the use of sealants and bioactive materials that allow for remineralization of tooth structure.

Who should attend your sessions?

My courses are geared toward dentists and are very procedure oriented. However, my philosophy is that to have the most cohesive, knowledgeable team, all auxiliaries who have a hand in treatment and communication with parents should be educated on treatment options and what is involved in delivering those treatments. Hygienists and assistants and our receptionists often spend more time with our patients than the dentist. They are critical in educating patients and parents.

What is the biggest challenge with working with pediatric patients?

One of the most important is the need to have different treatment options for each individual child — when the behaviour of that child warrants a change in plan. For example, we have techniques and materials that are more tolerant to moisture, more aesthetic than others and options that enable us to work quickly when patient cooperation is limited. The key is to know when to use each to deliver an excellent dental procedure — and to deliver an excellent feeling to that particular child. To make an Olympics analogy: We strive to have our children experience not only a “gold medal” in their dental standings, but also in their patient experience standings.

Attend today’s sessions!

“Restorative Pediatric Dentistry for the General Practitioner” today from 8:30 to 11 a.m. in Waterfront Hotel, Ballroom B. “Preventive Pediatric Dentistry for the General Practitioner” is from 1:30 to 4 p.m., in the same location.

Your sessions have five corporate sponsors. What is your relationship with them?

In dentistry, manufacturers are a large part of what we do every day. We cannot deliver any restorative and very little preventative treatments without dental products. Any course or lecture that is clinically oriented has a significant product component to them.

As a speaker and key opinion leader, I am approached by manufacturers to evaluate and give my opinions on new and emerging technology. This is both a privilege and an honour. I am introduced to many exciting new ideas, and some that also fail flat. Beyond that initial introduction and evaluation, I will continue to use materials and products that I like and believe in. In my day-to-day practice, I pay for all of my supplies and materials just like every other dental professional. In my courses I speak only of what I use in my practice on a daily basis, which is evident in my photos and videos.

All courses that receive corporate sponsorship are obligated and regulated to follow continuing education standards and bylaws to deliver a well-rounded course content.

When I receive an invitation to speak, I develop a course first and then approach the manufacturers to be involved in supporting the lecture. They are given an opportunity to provide educational sponsorship. This enables the meeting organizers to receive financial support to bring education to attendees.

In your “restorative” session, how do you demonstrate aesthetic anterior and posterior restorations?

I will be discussing specifically prefabricated paediatric pre-veneered stainless-steel crowns and prefabricated paediatric zirconia crowns. I will share several procedural demonstrations in the form of clinical videotaped footage.

If an attendee leaves with just one or two action steps to improve their clinical workflow, what would you hope those are?

I would hope that the attendees will leave knowing that there are many options available to allow for effective prevention of decay, and also for easier, faster, more aesthetic options for their kids and that they can implement them into their practices to improve the dental care that they provide.

Dr. Carla Cohn

Before and after photos of a restorative case using NuSmile ZR aesthetic paediatric crowns on a first primary molar.

(Photos/Provided by Dr. Carla Cohn)

Are advances in tools, materials and procedures in pediatric dentistry keeping pace with dentistry overall?

I feel as though we are just catching up now to where our adult counterpart are.

I took a long time for aesthetics to reach us and our children, and we still have a very long way to go in educating our dental teams. The attitude that these are temporary teeth and we need only have function but not form is one that is still a challenge. We have the ability to deliver strong and beautiful restorations with the advances in the last few years.

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