Dr. Sushil Koirala is the founding president of Vedic Institute of Smile Aesthetics (VISA) and the Nepalese Academy of Cosmetic and Aesthetic Dentistry & South Asian Academy of Aesthetic Dentistry. He maintains a private practice emphasizing on minimally invasive cosmetic dentistry. Dr. Koirala has developed the “Vedic Smile Concept”, the “Smile Design Wheel” and various clinical techniques for direct aesthetic restorations. He has authored “A clinical guide to Direct Cosmetic Restorations with Glimmer” and also conducts hands-on programs and delivers lectures, globally. DT India Editor Isha Goel spoke with Dr. Sushil Koirala about aesthetic dentistry.

Isha Goel: How’s aesthetic dentistry evolving as an application to become a necessary aspect of the general dental practice?

Dr. Koirala: Today, with an increased media coverage and availability of free web-based information on cosmetic dentistry, the public awareness on smile aesthetics has increased a lot. People now know that smile aesthetics play a key role in their sense of wellbeing, social acceptance by others, success at work and in relationships and the level of their self-confidence. The aesthetic expectations, desires, and demand of the dental patients have increased drastically and now a glowing, healthy and vibrant smile is no longer an exclusive domain of millionaires, models and movie stars only. Therefore, most of the general dentists are now forced to incorporate various aesthetic enhancement dental treatment modalities in their daily practices to meet the recent aesthetics demands of their patients.

One of the significant breakthroughs in cosmetic dentistry has been the development of dental veneers. How do you see the acceptance of veneers both among dentists and users?

Dr. Koirala: One of the most technique-sensitive procedures in aesthetic dentistry, hence demand proper case selections, minimal tooth preparation (preservation of tooth enamel) and selection of correct luting cements for its long-term aesthetics and functional success. Aesthetically, veneers are one of the most acceptable treatment modalities by the patients.

In addition to the color, shape and alignment of teeth, what are the other attributes that should be evaluated by a cosmetic dentist when planning a smile makeover? When we talk about treatment planning for any smile makeover case, there are a couple of things that we need to keep in our minds before we start the procedure. It’s been almost two years now that I have developed a “Smile Design Wheel” concept which explains about simple steps in smile design or make-over. I hope you have heard about PBFA-Pyramid of smile design. If not, I will explain you a bit here. In smile design or make-over, we need to start treatment by knowing patients’ PSYCHOLOGY, especially the perception, personality and desires. Next job is to establish proper HEALTH (general, specific and dento-gingival), and after establishing normal or acceptable health status of the patient, we should proceed to establish FUNCTION (occlusion, phonetic and comfort). In the last, we need to address the AESTHETICS components of smile, and for better understanding of the clinician, I have divided it into three divisions, namely, Macro-Aesthetics (Facial), Mini-Aesthetics (Dento-Facial) and Micro-Aesthetics (Dento-Gingival). Then the subjective choice of the patient plays a vital role and as per his/her desires, we should carry out the necessary aesthetic enhancement procedures. So the “Smile Design Wheel” protocol guides you to design a healthy, well-balanced (force components) & aesthetic smile with high patient satisfaction.

What advice would you have for clinicians who often are perplexed about how to balance aesthetics with function?

Dr. Koirala: Personally I see, nowadays in cosmetic dental practice, the function and health is being over shadowed by the aesthetics component, and it is a great concern to many of us, who advocate healthy and functional aesthetics in cosmetic dentistry. It is to be noted that aesthetics without health and function is a case failure in dentistry. So when you take up any cases for aesthetic enhancement, you must follow the sequences of – Psychology-Health-Function first and then only you should concentrate on the aesthetic part, which has again three areas normally guided by the patient’s desires.

Although, composites have by and large replaced non-tooth colored materials, their long-term strength has been an area of concern. In your opinion, can this issue be addressed adequately to allow the dentist to use them with confidence and assurance?

Dr. Koirala: With my 17 years of clinical practice and involvement in various international CDE programs, I have found that, most of the practitioners are not willing to learn about the newer developments in dental material science. By and large, we follow what we study in our graduations, but it is a fact that development in dental materials sciences is very rapid and we must have proper information about it to provide better patients care.

There are composites resin restorative materials with better physical and aesthetics properties available now in the market. The case selection is very important while using composite resins. In the posterior heavy load bearing areas, I still prefer to go for indirect tooth-colored onlay or inlay, however, in most of the anterior aesthetic cases direct composite resins are a good alternative to ceramic restorations.

As aesthetic dental procedures are highly technique sensitive, do you think that the selection of dental material play a significant role in success of these treatment? If so, can you please suggest some guidance which can help practitioners in product selection?

Dr. Koirala: You are very correct that, aesthetic dental procedures are highly technique sensitive, and selection of dental materials as per the case type plays a significant role.

If you go through the literature about physical properties of dental hard tissues and corresponding biomaterials, it suggests, dentin structure of the natural tooth has similar physical (elastic modulus, thermal expansion coefficient and ultimate tensile strength) and optical properties as that of...
hybrid composites and natural enamel with fieldspathic ceramics. Whenever possible, I suggest clinicians to follow the above findings, but in practice it may not always be possible, so the natural optical properties and load-bearing status of the tooth lesion need to be analyzed properly to select the appropriate aesthetic bio-restorative materials.

How’s the use of lasers in cosmetic dental practice being perceived by dentists as a more comfortable and convenient tool they could possibly offer to their patients?

Personally I feel that there are many treatment modalities available in cosmetic dental practice and you can use various techniques and protocols as well as various equipments as per your comfort and affordability. The major concern area is the evidence that you need to search for before you use any new equipment, protocols or techniques. Certainly, laser has some definite advantages over conventional techniques, but I suggest the clinicians to perform a need analysis before buying any costly new equipment for the practice.

From your experience, what are the recent trends in the field of cosmetic dentistry? What expectations do you have for the future?

Thank you very much for asking one of the most relevant questions in cosmetic dentistry. If I have to reply to this question in a simple and short manner, I will just say Minimally Invasive Cosmetic Dentistry (MiCD) is an emerging trend. This is the reason that the South Asian Academy of Aesthetic Dentistry (SAAAD) has accepted the MiCD as an emerging trend and is keeping it as its conference theme for first biennial scientific meeting to be held in Nepal on November, 28-29. I think we have to move towards the minimally invasive technology in dentistry and respect the long-term health, function and aesthetics of the oral tissue. In future, I expect more digital technology available for the early assessment of the oral diseases, defects (functional and aesthetics) to match patient’s desires along with more options in aesthetic biomaterials.

Do you have any suggestions for our readers, who have interest in incorporating cosmetic dentistry into their practice?

Cosmetic dentistry is a science-based creative work, which is dominated much by the art component. We must understand that there is no shortcut in the art; i.e. cosmetic dentistry requires a lot of dedication. I think that any work related to the cosmetic dentistry is a piece of art, and, hence suggest you to document each of your artwork, so that one day your practice will have beautiful Smile Art Gallery which will give you full satisfaction in future. As far as incorporating the cosmetic dentistry in your practice is concerned, first you need to upgrade your knowledge about smile aesthetics, then learn basic aesthetic dentistry skills and always start with a simple case and move towards more complex one. I wish you success and joy.

Thank you very much for the interview.

“Aesthetic procedures are highly technique sensitive”