Incorporating Facial Rejuvenation Procedures in the Dental Practice

By Dr. Warren Roberts

Is there a place for BOTOX® in dentistry? Should dentists provide facial rejuvenation procedures that commonly have been performed at spas and by the medical profession? Looking at the facts surrounding BOTOX® may cause a paradigm shift in your attitude toward this treatment modality.

My family’s background is in the commercial fishing industry, and my father is a famous seine boat fishing captain. At an early age, he instilled in me that the key to success is to use the latest technology and advancements to chart your course before the tide begins to change. Although I did not follow in his footsteps, his words resonated for me within my own profession.

Recognizing that the tide was changing in dentistry, my wife Janet — also a dentist — and I decided to include facial rejuvenation procedures into our practice’s “smile design” treatment. Our most exciting adventure to date has been the opening of a dental and facial rejuvenation/esthetic dentistry center, appropriately named, “A Smile Above.” We are enjoying the practice of dentistry more today than ever before.

What is Facial Rejuvenation?

Facial rejuvenation is any cosmetic, dental or medical procedure used to restore a younger appearance to the face without surgery and includes a number of treatment modalities. Two of the most common are BOTOX® and dermal fillers, and both are minimally invasive and reversible. BOTOX®, the naturally purified protein of the clostridium botulinum bacteria, is used to chemically soften lines and wrinkles of the face and neck. Approximately three to four months after the initial BOTOX® treatment, the treated muscles will return to their pretreatment condition. Hyaluronic dermal fillers restore volume lost through the natural aging process. Nine to 12 months after a hyaluronic acid dermal filler treatment, the filler is naturally resorbed by the body.

Our initial training in BOTOX® and dermal fillers was provided by a physician colleague. Once we acquired the basic skills, the major challenge we then faced was how to incorporate these skills into our dental practice. After taking any new course and learning new skills, the most difficult task is training your team to integrate the new information into your existing systems. Although challenging, this task can invigorate the team and provide stimulation for those eager to improve and expand their horizons in the art and science of dentistry.

It is important to realize that BOTOX® and dermal fillers have transient effects that need to be replenished at three and nine month intervals, respectively. Dental offices are renowned for their three and six month recare appointments. The key is to integrate BOTOX® into your recare program. Facial rejuvenation can be seamlessly incorporated into an already existing recare system while providing patients a discreet way of maintaining their BOTOX® and dermal fillers.

Patients interested in enhancing the appearance and function of their teeth frequently want to improve their overall facial appearance as well. In the past, they sought treatment for facial enhancement elsewhere. However, as dentists we are uniquely skilled to provide these treatments for our patients. Who has better training and understanding of facial anatomy than dentists? Dentists are extensively trained in the anatomy and physiology of the head and neck, and most are skilled in the delivery of painless injections. In many medical offices and spas, BOTOX® and dermal filler procedures are performed by nurses and assistants with less training. Dentists can be trained to perform delicate endodontic procedures, sinus lifts for implants and other involved surgical procedures. They are capable of administering tiny injections into superficial muscles of the facial area, as well as resorbable gels into superficial areas of the skin. Patients trust dentists to work on the mouth and surrounding areas, and the injections used in facial rejuvenation may have a direct influence on other treatments the dentist provides.

BOTOX® and Esthetic Dentistry

These two treatments are a natural adjunct to esthetic dentistry and their use can have a major impact on the esthetic outcome of the “true smile makeover” and comprehensive restorative treatment through their effect on tooth display and the draping of the soft tissue around the mouth. Even dentists who may not be inclined to provide these treatments should educate themselves on how BOTOX® and dermal fillers influence the Roberts Facial Rejuvenation Photography (RFRP) series comprises 28 facial views and 1 intra-oral view.
the dental treatment they provide. For example, the muscles responsible for the midface expression can have a drastic effect in some patients. Have you ever met someone who smiled at you and showed an inch of gingival tissue (“gummy smile”)? No matter how you attempt to look away, your gaze keeps returning and waiting for the gingival display to appear again. Dentists who perform orthodontic procedures should be reminded that young women have a 13.8 percent incidence of excessive gingival display. After several years of orthodontic treatment, learn how to finish these cases by diminishing the muscular hyperactivity that produces the “gummy smile.” Treatment for a “gummy smile” is often an invasive surgical Le Fort I procedure or surgical crown lengthening. Alternatively, BOTOX® may significantly improve the appearance. A two-unit placement of BOTOX® is often all that is required to improve the appearance. A two-minute, $50 procedure repeated every three to four months can provide alternative noninvasive esthetic improvement in many cases.

Another example of the direct influence on other treatment involves the platysma, one of the muscles used in facial expression, which may have a previously unrecognized effect on gingival attachment. The muscle is often treated with BOTOX® to relieve what is referred to as “necklace lines” around the neck. It arises from the fascia covering the pectoral major and deltoid muscles and inserts into a broad area of the mandible, the skin and subcutaneous tissue of the lower part of the face. In patients with fragile gingival attachment, hyperactivity of this large muscle may predispose them to gingival recession and bone loss.

As esthetic dentistry has evolved, photography has taken on an increasing role. Photography is essential to many aspects, from cosmetic imaging that allows a patient to preview a potential course of treatment to laboratory communication to accurate record keeping. In the area of facial rejuvenation, patients often have difficulty understanding and communicating what they want to improve. A series of photographs that allows them to view themselves from all angles is required, but no protocol existed. To fill this need, we created the Roberts Facial Rejuvenation Photography (RFRP) series of 29 digital pictures. This series enables the patient to view themselves from angles they are unaccustomed to seeing, with various muscles activated. It also helps the dentist to critically analyze the face and demonstrates how the muscles of facial expression affect the smile design.

Today, the sophisticated patient has access to unlimited information online, resulting in an increase in esthetic demands placed upon dentists. The critical relation between facial soft tissue contours, anterior dental esthetics and function must be addressed. If the aging soft tissue aspects associated with the smile are addressed prior to the definitive dental treatment, the final restorative approach may need to be significantly modified. The importance and effect of facial rejuvenation upon a smile design cannot be overstated and should be included into the diagnosis and treatment plan.

Other Uses for BOTOX®

In April 2009, a research article was published and linked to the use of BOTOX® with decreased anxiety and depression1. A few months later in the June issue of the Journal of the Canadian Dental Association, another article addressing the current concepts in oral-systemic health2 discussed how anxiety and depression play a role in periodontal disease. Recognizing the connection between BOTOX® and anxiety and depression, should we be investigating a possible role for BOTOX® in treating periodontal disease? The critical relation between oral-systemic health discussed how anxiety and depression play a role in periodontal disease. Recognizing the connection between BOTOX® and anxiety and depression, should we be investigating a possible role for BOTOX® in treating periodontal disease? As BOTOX® therapy becomes more mainstream in dentistry, we may find other uses for a cosmetic treatment often dismissed as unrelated to the dental profession.