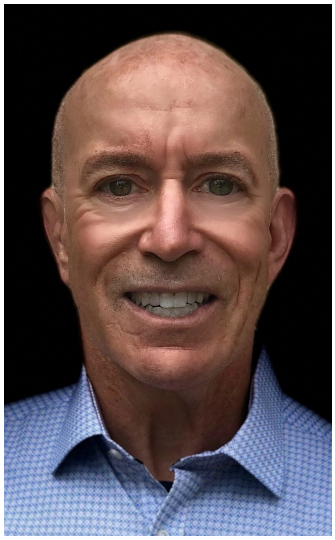




<u>A Coraline-Derived Peri-Implant Bone Graft</u>

Oral Presentation

Authors: Dr. Mark C. Perry B.Sc., D.D.S., A.E.M.C.A., Sandra Ammonn B.A., R.R.D.H

Presented by: Dr. Mark C. Perry B.Sc., D.D.S., A.E.M.C.A., Sandra Ammonn B.A., R.R.D.H.

Marine corals have been discussed as potential human bone graft substitutes since 1979. The structure of marine coral is similar to human bone. Its components, structure and property are similar to the inorganic components of human bone. Coraline hydroxyapatite's biocompatibility is derived from the exoskeleton of the "high content calcium carbonate scaffolds."

Coraline hydroxyapatite is manufactured from marine coral. Marine coral has a trabecular structure similar to that of human bone. The benefits of Coraline hydroxyapatite include its biocompatibility, osteoconductivity, biodegradability and safety. It avoids immune rejection that may occur with the use of allografts. Its rate of action depends on the porosity of the exoskeleton and the site of implantation.

Its use as a carrier for autogenous bone grafts during oral surgical procedures including extractions, implant surgery and periodontal surgery will be presented. Coraline hydroxyapatite provides a structure and support mechanism to guide the formation of new bone. Synthesized hydroxyapatite offers poor porosity for the promotion of vascular and hard tissue. Coraline hydroxyapatite has a similar pore structure as human cancellous bone.

Cases will be presented via video, still photography and radiography to demonstrate the use of a Coraline hydroxyapatite bone graft to aid in the repair of alveolar bone in extraction sites, implant surgical sites, cases of peri-implantitis and periodontal surgery. A step-by-step guide will be exhibited so that clinicians may begin to apply this procedure in their own. practice.

Coraline Hydroxyapatite/Autogenous Bone Graft Procedure:

1. Collect autologous bone graft material, utilizing the Osseous Coagulum Trap, from an extraction procedure, surgical implant procedure and/or a suitable donor site.
2. Mix the Coraline hydroxyapatite graft material with the autologous bone (from the Osseous Coagulum Trap) and autologous blood.
3. Utilizing a suitable carrier place the autologous/Coraline bone graft into position in the alveolus to create a stable graft location in order that osteoconductivity may begin immediately. Ensure sutures are not under high tension, do not over-fill the alveolar cavity with the graft, and prescribe antibiotics and an anti-bacterial mouth rinse post-operatively.
4. Allow four to six months of healing to occur before determining radiographically if the implant and graft material are fully osseointegrated.

There are four major features of Coraline hydroxyapatite:

1. Biocompatability
2. Strength similar to bone.
3. Promotion of remodelling.
4. Bioactivity- it attracts and hosts new bone cells.

Take-Away Points:

1. **Autologous bone should be preserved utilizing the Osseous Coagulum Trap**
2. **Coraline hydroxyapatite is a suitable biocompatible bone graft material.**
3. **Coraline hydroxyapatite should be mixed with autologous bone graft material and autologous blood to form an alveolar bone graft.**
4. **Utilizing a suitable carrier the bone graft can injected into a suitable graft location.**
5. **The graft bio-compatibility should be followed radiographically for 4-6 months.**
6. **This graft technique can be utilized during implant surgery, general oral surgery and periodontal surgery.**
7. **This is a simple, cost-effective bone graft procedure used to treat extraction sites, implant surgical sites, periodontal bone loss, and peri-implantitis.**

Biography:

Dr. Mark C. Perry B.Sc., D.D.S., A.E.M.C.A

Bachelor of Science, Double Major in Physiology and Human Biology, University of Toronto, 1986

Doctor of Dental Surgery, University of Western Ontario, 1990

Dental Internship, St. Michael's Hospital, University of Toronto, 1990-1991

Emergency Medical Care Assistant, Ontario Ministry of Health and Long Term Care, 1996

Advanced Emergency Medical Care Assistant, Ontario Ministry of Health and Long Term Care, 2014

I am a Dental Surgeon and Paramedic. I practice wide-scope general dentistry with moderate sedation at the following practice:

Dentistry on King
679 King Street West
Kitchener, Ontario
Canada
N2G 1C9

519-579-1899

info@dentistryonking.com

I was born in Montreal, Quebec and raised in Toronto, Ontario. After completing dental school at the University of Western Ontario I completed a general practice dental internship at St. Michael's Hospital in Toronto, Ontario. This internship provided me with advanced training in anesthesia, oral surgery, dental emergencies and the treatment of medically compromised patients. After completing the internship in July, 1991 I practiced general dentistry in northern, central and southern Ontario. I practiced as a Primary Care Paramedic in Nobleton, Ontario from 1992 to 1997. I began a solo practice with my wife, Sandra Ammonn, a Registered Restorative Dental Hygienist, in Kitchener, Ontario in 1997 and added a satellite practice in Elmira, Ontario in 2014.

Biography:

Sandra Ammonn B.A., R.R.D.H.

Bachelor of Arts, Majors in Urban Development and Geography, University of Western Ontario, 1993

Dental Hygiene, Canadore College, 1996

Restorative Dental Hygiene, George Brown College, 1998

I am a Registered Restorative Dental Hygienist and practice wide-scope restorative dental hygiene at the following practice:

Dentistry on King
679 King Street West
Kitchener, Ontario
Canada
N2G 1C9

519-579-1899

info@dentistryonking.com

I was born and raised in London, Ontario. I entered practice with my husband, Mark Perry, in Kitchener, Ontario in 1997. I upgraded my skills to restorative hygiene in 1998 and added a satellite practice in Elmira, Ontario in 2014. I practice wide-scope restorative dentistry and orthodontics. I assist Mark Perry in moderate sedation and oral surgical procedures.

In addition to my practice in dentistry I own and operate a 20 acre equestrian facility in Elmira, Ontario. I focus on the equestrian sports of show jumping and dressage. I have competed in show jumping at the Wellington Equestrian Festival in Florida and the Trillium Circuit in Ontario. For the 2016 and 2017 horse show seasons my Friesian Stallion, Xenophon, has won the award for the North American Friesian horse that has obtained the highest scores from all United States Dressage Federation (USDF) Open Classes, including freestyle, based on the USDF year-end standings.

Author Details:

Full Name: Dr. Mark Perry, Sandra Ammonn

Contact Number: 519-579-1899

Address:
679 King Street West
Kitchener, Ontario
Canada
N2G 1C9

Country: Canada

Category: Oral Presentation

Session Name: A Coraline-Derived Peri-Implant Bone Graft

Email: info@dentistryonking.com