

WORLD SUMMIT TOUR 2017-2018

SHANGHAi

Because inspiration and confidence matters.



CONGRESS PROGRAM

- 4 Scientific committee
- 6 Pre-congress program
- 8 Scientific program
- 14 Evening event
- 16 Poster Gallery
- 18 Inspiration Hub
- 24 Getting around
- 26 Faculty

ABSTRACT BOOK

- 29 Pre-congress program and Faculty
- 33 Scientific program and Faculty
- 51 Poster Competition

113 Notes



Social media

Like and share our posts from the congress and publish on your own social media using the hashtag #WorldSummitTour.

As an attendee of the World Summit Tour program in Shanghai, please note that you/your likeness may be captured in photographs and videos by the professional photographers and videographers that will be on site.

One tour. Four stops. Endless inspiration.

We are happy to welcome you to the World Summit Tour —the scientific congress on implant dentistry.

During the next two days, we will take a journey of discovery with a scientific committee of industry leaders and renowned international and regional speakers; a journey led by our shared passion for implant dentistry and a commitment to science, documentation, education and innovation.

We meet here in Shanghai as a part of our goal for creating a world where everyone can eat, speak, and smile with confidence. The driving forces of our daily work are not only to restore missing teeth, but to help give back quality of life and to restore happiness.

Through the presentation of clinical evidence and strategies for treatment success, as well as peer-to-peer discussions, we hope to further instill your confidence in knowing you are providing your implant patients with the best treatment solutions available.

We are truly grateful for your partnership and participation, and we hope to exceed your expectations in these coming days.

With warmest regards,

Lars Henrikson Group Vice President Dentsply Sirona Implants

Ok, let's go



A journey in science

Science is the foundation for all technology, it is a must for peace of mind and predictability.

Science in itself is without meaning, it only adds value when it is applied. Our dedication and devotion to the facts of science, not the whim of opinion, comes down to one thing—the best results possible for the benefit of your patients. Because they deserve scientifically-proven products and solutions that will last a lifetime.

You are about to experience a scientific program that brings together the best of science and clinical care, where current scientific news and the latest clinical and digital development within implant dentistry come together.

Featuring outstanding speakers and moderators and with a focus on the many aspects of implant dentistry and predictable clinical results, you can rest assured—everything you and your team need for inspiration and confidence is right here.

THE INTERNATIONAL SCIENTIFIC COMMITTEE













Read more about our committee members.







Pre-congress I

The SynCone concept for edentulous patients

Hands-on training 13.30-17.30 [®] Function room 2 (3F)

Implant-supported overdentures retained by double crown attachment are comparable with fixed bridges concerning esthetics, loading and retention function including simplified oral hygiene.

This workshop will focus on how to use the SynCone concept to accomplish immediate loading for fully edentulous mandible, including therapy planning, selection and adjustment of abutments, surgical and prosthetics handling including management of complications.

Speaker: Gang Chen













Pre-congress II

Facing the challenge—management of complicated cases in implant-related clinical practice 13.30-17.30 ⁽⁹⁾ Plum Blossom Room + Orchid Room (2F)

The patient population of today can be quite challenging for the clinician displaying a multitude of clinical/medical conditions demanding individualized considerations and treatment. In this session indepth knowledge on how to perform successful implant treatment on patients with diabetes mellitus and severe osteoporosis are addressed. Patient expectations on long lasting and esthetic results have been elevated where new technology can support predictable outcomes including soft and hard tissue management as well as long term functional follow-up on sinus lift procedures.

Moderators: Yanmin Zhou and Bin Shi

Speakers: Yingliang Song, Zhonghao Liu, Shulan Xu and Zhuofan Chen

60

19

The scientific program sessions will be held in English and in Chinese/Mandarin. Simultaneously translation will be provided into Chinese/Mandarin and English.

OPENING CEREMONY



Long-term success in implant treatment a journey in implant dentistry on three continents 8.30-10.30 [©] Grand Shanghai Ballroom

The concept of osseointegration has revolutionized the history of dental implants. Thanks to the Toronto Conference on Osseointegration Clinical Dentistry in the 1980s, modern implant dentistry spread from Europe to North America and other parts of the world, such as China. In this session, three well-renowned speakers from Europe, America and China, will guide you through an exciting journey, sharing their experiences and unique insights, unveiling what are the core factors for lasting successful dental implant treatment. Speakers:

Ye Lin Implant design development and clinical significance

Nigel Saynor Contemporary implant concepts—predictable outcomes

Lyndon Cooper Teeth for a lifetime

Moderator:

Ye Lin

10.30–11.00 Tea break Visit the Poster Gallery and explore the Inspiration Hub with various hands-on activities.



SCIENTIFIC PROGRAM





TETSU TAKAHASHI

LEI ZHOU

Surgical confidence and advanced techniques

11.00–12.10 Grand Shanghai Ballroom

Various surgical techniques are used for optimal implant treatment. What are the available treatment options for hard and soft tissue stability and how can these be used to expand treatment options?

Moderator:

Yucheng Su

Speakers:

Yu Zhang Achieving a harmonious environment around implants—the surgical aspect

Tetsu Takahashi Bone augmentation—the future

Lei Zhou

Immediate loading in the fully edentulous jawdesign and technical procedures





Restorative focus beginning from the end 11.00-12.00 [®] Pudong Ballroom

It is important to define the final desired result and to plan the treatment needed to achieve it. Proper prosthetic planning and digital connectivity leads to expanded solutions and the ability to provide treatment to more patients.

Moderator:

Yongsheng Zhou

Speakers:

Ping Di

New advancements in immediate implant restoration

Peter Gehrke

The impact of implant-abutment junction on restorative treatment concepts

12.00-13.20 Lunch break

Visit the Poster Gallery and explore the Inspiration Hub with various hands-on activities.



19







Life restored—solutions for the fully edentulous patients 13.20-14.40 [©] Grand Shanghai ballroom

There is a variety of solutions designed to meet the individual needs of fully edentulous patients. These options take into account clinical situations, financial requirements and patients' expectations.

Moderator:

Zuolin Wang

Speakers:

Barry Goldenberg

Options for the complete arch rehabilitation with implants—prosthodontic and biomechanical principles

Jiansheng Huang

Solution-oriented treatment for implant-supported immediate functional restoration in edentulous patients

Jocelyne Feine

Exploring quality of life in edentulous elders





Peri-implant tissue health 13.20-14.20 [®] Pudong ballroom

Peri-implant tissue health is a prerequisite for a successful long-term result. However, complications are an inevitable clinical reality. How can soft-tissue health be maintained and improved to ensure the overall treatment outcome?

Moderator:

Jincai Zhang

Speakers:

Cherng-Tzeh Chou

Management of healthy peri-implant tissue prevention and treatment of infection

Theofilos Koutouzis

New perspectives on peri-implant tissue dynamics and health maintenance

14.20-15.20 Tea break

Visit the Poster Gallery and explore the Inspiration Hub with various hands-on activities.













Inspiration TALKS—the evolution of implants 15.20-17.00 [®] Grand Shanghai Ballroom

Innovation and evolution in implant dentistry are essential for the development of predictable solutions and therapies. The development is driven by two factors—science and clinical experience. Science is the natural backbone of implant dentistry and clinical experience is the daily challenge for the dental professional. By learning from science, draw own conclusions and professionally apply them in the daily work, we are all part of the innovation and evolutionary processes. Speakers:

Homa Zadeh Protocols to minimize peri-implant bone loss

Joey Chen Clinical applications in immediate implant treatment

Clark Stanford Why document evolution?

Moderator: Lyndon Cooper







Digital technology and workflows 08.30-09.30 [©] Grand Shanghai Ballroom

With the introduction of digital technologies and processes in the field of implant dentistry, treatment procedures for diagnosis, surgery and restorative processes have become more standardized, predictable and accurate. Digital dentistry allows us to define the desired final result and to plan and execute the treatment needed to achieve it.

Moderator:

Hongchang Lai

Speakers:

Mischa Krebs

Absolute precision—a prerequisite for single-visit reconstructions and outstanding clinical success

Yi Man

Digital implantology—clash between vision and reality







A clinical study program in China science and clinical experience after 3 years

08.30-09.25 🖗 Pudong ballroom

In 2010 an extensive research collaboration between several Chinese universities and Dentsply Sirona Implants was initiated, and in total 5 prospective, multicenter studies involving >40 researchers from across China were started. The research collaboration has received worldwide recognition with several publications and presentations at international congresses. Meet three of the well-known researchers, sharing their experiences and results.

Moderator:

Huiming Wang

Speakers:

Dehua Li

Early loading of narrow dental implants in anterior jaw areas—a multicenter prospective study

Feilong Deng

Early loading of splinted implants in the posterior maxilla—a multicenter prospective study

Huanxin Meng

A prospective, multi-center study with 3-year followup assessing early loading with short, 6 mm implants in posterior regions

9.30-10.00 Tea break

Visit the Poster Gallery and explore the Inspiration Hub with various hands-on activities.





Outlook on a bright future 10.00-12.00 [©] Grand Shanghai Ballroom

The future of implant dentistry is full of unexplored possibilities and new opportunities for patients and clinicians. Dental implant treatment is already making a huge difference for millions of people in their physical and emotional well-being. As a dental professional, you are helping to create stories of inspiration and improved quality of life each day.

Moderator:

Ye Lin

Speakers:

Marco Degidi New prosthetic options in the edentulous patient

Daniel Thoma

Meeting patient demands—short and narrow implants to avoid major bone augmentation

Paul Weigl

Implant therapy and the virtual patient—safer and faster final outcome in reality

CLOSING CEREMONY

A NIGHT OF INSPIRATION

Saturday, May 19, 19.15–21.15 🖗 Main Ballroom



& HISTORY

Join us on a journey back in history, to a time when the wealthy elite of Shanghai society mingled in the Art Deco hub of Chinese and Western culture, business and industry. Welcome to an inspiring evening with a cultural blend and balance of cheongsam, dance, music and cuisine.

Dress code: Smart casual / Dress like the Shanghai society did in the 1920s and be a part of history.

Registration necessary

Join the Poster Competition winners as they bask in the light of success

No scientific congress would be complete without the all-important Poster Competition, where aspiring scientists and experienced clinicians showcase their posters.

On May 19 at 17.20–18.20, the Scientific Committee will do a poster walk and the poster presenters will be available at their posters to answer questions.

On May 20, the Scientific Committee will present the winning posters in the categories Clinical Application and Research. The winners will go on to the Global Poster Competition.

Join us and celebrate the best of the best in the Poster Gallery.

Refer to pages 51–112 for Poster Competition abstracts.

Inspiration for the future

The Scientific Committee will award the winners in each category with € 1,500 academic event expenditure. The winners will be announced in the Poster Competition Award ceremony, held during the closing session on Sunday, May 20. Did your favorite poster and author win?

The Scientific Committee Shanghai



The Scientific Committee reviews abstracts and selects the Poster Competition winners at the Shanghai tour stop.

Global Poster Competition Committee



The Global Poster Competition Committee selects two global winners, one in each category, from the four tour stops. The global winners will be announced in July 2018.

Opening hours Saturday 7.30–19.00

Sunday 8.00-13.00

Inspiration Hub

Let's meet at the point where inspiration, knowledge and confidence come alive in dental implant treatment solutions.

Discover the latest products and protocols. Network with colleagues and friends—and get inspired.

Inspiration and confidence

Delivering the best results to implant patients require products and treatment concepts that offer you the freedom to create long-lasting, individualized solutions.

At Dentsply Sirona Implants, we are dedicated to providing clinically proven products of the highest quality and backed by extensive documentation because we believe this is the level of commitment you deserve for delivering optimized care.

As part of Dentsply Sirona, the global technology and innovation leader, our solutions make a difference to the lives of over six million dental patients every day—helping them eat, speak, and smile with confidence.

Discover products and solutions for long-lasting, high quality implant restorations

Data capturing

Orthophos SL is right solution for every practice, setting the standard for 2D and 3D digital images. CEREC Omnicam allows for easy intraoral scanning with precise 3D images in natural color.

Implant planning

Digital treatment planning with Simplant ensures accuracy in planning of the implant treatment. Simplant software is compatible with all major implant systems.

The use of surgical guides provides precise transfer of the planning during implant treatment.

Implant placement

Dentsply Sirona Implants provides welldocumented implant systems for exceptional long-term esthetic results. Ankylos is the solution for all clinical indications with its predictable, natural esthetics. Astra Tech Implant System offers surgical simplicity, accuracy and restorative ease. Xive is a smart, intuitive and flexible flat-to-flat implant system offering superior primary stability.

Restorative solutions

CEREC CAD/CAM solutions for restorations, implant dentistry and orthodontics include scanning, designing, milling/grinding and sintering/ glazing technology for digital implant workflows, as well as a variety of materials.

CAD/CAM abutments are compatible with Astra Tech Implant System EV and supporting the one-position-only placement to streamline your implant workflow.

Aquasil Ultra impression material performs in all areas—precision transfer of implant position, detail reproduction of surrounding soft tissue and dentition, handling, and patient experience.

Restorative materials, accessories and small equipment from Dentsply Sirona help to master every step in restorative procedures to provide the best possible dental care. These include materials for direct and indirect restorations, adhesives and curing lights.





Implant solutions

Astra Tech NEW Implant System EV

Discover the next step in the continuous evolution of the Astra Tech Implant System, well documented for its long-term marginal bone maintenance and esthetic results.

Pass by at the booth to get practical experience with the new implants and system components.

Ankylos

In clinical use for more than 30 years, the Ankylos implant system provides you with solutions that deliver longterm stability of hard and soft tissues and thus lasting esthetic results.

Xive

For more than a decade, users all over the world have relied on Xive for flexible, versatile implant solutions with superior primary stability.

Digital planning

Explore solutions for digital data capturing and intraoral scanning to treatment planning software and 3D-printed surgical guides for your preferred implant workflow.



Science hub

Meet our science and research experts to learn about our clinical solutions and emerging innovations and how they are backed by sound science.

Experience a close encounter with our implant surfaces through the Virtual Reality glasses and get to know more about our global clinical research supporting all our product and solution areas.

Let's go forward together—backed by sound science.

Astra Tech Implant System EV Science Hub

> Digital planning

Restorative solutions

Experience our broad portfolio of restorative materials and technologies to support both conventional and digital implant workflows.

Ankylos

Xive

Restorative

solutions

2nd floor/Registration level



3rd floor/Congress level



Inspiration Hub



Getting around

Relax and enjoy yourself. We've worked hard to make getting around as easy as possible, so you can explore and be inspired at your leisure.



Congress venue

Kerry Hotel Pudong No.1388 Hua Mu Road Pudong Shanghai, 201204, China

Phone: +86 21 6169 8888 www.shangri-la.com/shanghai/ kerryhotelpudong/



Internet access

Free, wireless internet access will be provided throughout the congress area courtesy of the Kerry Hotel Pudong.

Wi-Fi: Kerry Hotel



Registration opening hours

The registration and information desks are located at Kerry Hotel, level 2F and open during the following hours:

Friday, May 18 12.00-20.00

Saturday, May 19 7.00–19.00

Sunday, May 20 7.00-13.00



Name badges

Please have your name badge with you and visible at all times, as this is your pass to the World Summit Tour program and exhibition. If you lose your badge, please stop by the Registration Desk.



Lost & found

Lost and found items will be handled by the registration desk.



Photography & videotaping

Please note that photography and videotaping by delegates is prohibited during all scientific sessions.



Breaks

Please note that tea breaks and lunch on Friday, and the coffee break on Saturday will be served in the exhibition area.

Saturday, May 19 Tea break: 10.30-11.00 Lunch: 12.00-13.20 Tea break: 14.20-15.20

Sunday, May 20 Tea break: 9.30-10.00



Personal, property & information security

Please note the emergency exits and routines at the congress venue and hotels. Please do not leave valuables, including laptops, unattended at any time. Please do not leave sensitive information or congress material behind at the venues or in the hotel room. Please report any lost or stolen property to the registration desk, or to the evening event security staff.



Emergency

In case of emergency, please call 110 (police), 119 (fire) or 120 (medical emergency) and immediately notify the nearest congress/event/hotel staff.



Evening event tickets

For more information about evening event tickets, please visit the registration desk.



Contacts

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Translation

Simultaneous translation will be provided into English and Chinese/Mandarin. Headsets will be available at the entrance of the Grand Shanghai ballroom, level 3F.











ZHUOFAN CHEN

CHERNG-TZEH CHOU

PING DI







LYNDON COOPER





ZHONGHAO LIU



YE LIN





XING WANG



ZUOLIN WANG





THEOFILOS KOUTOUZIS

YUCHENG SU

PAUL WEIGL

YU ZHANG



MISCHA KREBS

TETSU TAKAHASHI









HONGCHANG LAI













YANMIN ZHOU











HUIMING WANG

















Faculty

The World Summit Tour is proud to feature renowned international and regional speakers and moderators that are committed to the latest research, innovations and clinical data in their area of expertise.

Gang Chen	Mischa Krebs	Daniel Thoma
Joey Chen	Hongchang Lai	Huiming Wang
Zhuofan Chen	Dehua Li	Xing Wang
Cherng-Tzeh Chou	Ye Lin	Zuolin Wang
Lyndon Cooper	Zhonghao Liu	Paul Weigl
Marco Degidi	Yi Man	Shulan Xu
Feilong Deng	Huanxin Meng	Guangyan Yu
Ping Di	Nigel Saynor	Homa Zadeh
Jocelyne Feine	Bin Shi	Jincai Zhang
Peter Gehrke	Yingliang Song	Yu Zhang
Barry Goldenberg	Clark Stanford	Lei Zhou
Jiansheng Huang	Yucheng Su	Yanmin Zhou
Theofilos Koutouzis	Tetsu Takahashi	Yongsheng Zhou



Abstract book Pre-congress program and Faculty

TAT



Gang Chen

The SynCone® concept for edentulous patients

Gang Chen is DDS, PhD, Doctorate, Peking University, as well as Master Tutor at the Goethe University Frankfurt College of Dentistry, Director, U-dental Implant Training Center (UITC), Committee member, Society of Oral Implantology, Guangdong. He is the first Chinese specialist in implantology acknowledged by the European Association for Osseointegration (EAO). Implant-supported overdentures retained by double crown attachment are comparable with fixed bridges concerning esthetics, loading and retention function including simplified oral hygiene. This workshop will focus on how to use the SynCone concept to accomplish immediate loading for fully edentulous mandible, including therapy planning, selection and adjustment of abutments, surgical and prosthetics handling including management of complications.



Yanmin Zhou Moderator



Bin Shi Moderator



Yingliang Song



Zhonghao Liu



Shulan Xu



Zhuofan Chen

Facing the challenge—management of complicated cases in implant-related clinical practice

The patient population of today can be quite challenging for the clinician displaying a multitude of clinical/medical conditions demanding individualized considerations and treatment. In this session indepth knowledge on how to perform successful implant treatment on patients with diabetes mellitus and severe osteoporosis are addressed. Patient expectations on long lasting and esthetic results have been elevated where new technology can support predictable outcomes including soft and hard tissue management as well as long term functional follow-up on sinus lift procedures.

Yanmin Zhou is PhD, Professor, chief physician. Dean of Jilin Univerity Stomatology Hospital, and member of Standing Committee of implant association of CSA. He is also President of oral medical association of Jilin province and Member of the standing committee of doctor association of Jilin province.

Bin Shi is PhD, professor, chief physician doctoral supervisor, director of the implant center Wuhan University Stomatology Hospital. His main research covers biomechanics, bone regeneration material, periimplantitis and relative pathogenic mechanism. He has published more than 60 articles including 20 in SCI. He has cultivated more than 60 master's and doctoral students. He is the deputy editor of the "Clinical Implant Dentistry and Related Research" Chinese version" and "Clinical Oral Implant Research" Chinese version. He is also the editor of "Oral and Dental Sciences Study". **Yingliang Song** is professor, chief physician, doctoral supervisor, and doctor of prosthodontics. He is also Vice-coordinator of Oral Implant Specialized Committee, Vice-coordinator of Oral laser applications (SOLA), CSA. He has published more than 80 articles, is the main translator for the book Implant Restorations—A Stepby-Step Guide, and is an Editorial board member and reviewer of Chinese Journal of Stomatology.

Zhonghao Liu is PhD, professor, chief physician, and master tutor, as well as Dean of Binzhou Medical University, Yantai Stomatology Hospital, and member of Standing Committee of implant association of CSA. His main research areas are in vitro evaluation of implant surfaces and bone reconstruction around implants, as well as immediate implant placement and minimally invasive implant placement.

Shulan Xu is chief physician, director of the implant center, Southern Medical University hospital, master tutor, member of Standing Committee of implant association of CSA, the director of the Asia Pacific oral implant association, as well as Guest editor of Implantology and Related Research, and Editor of Journal of Modern Stomatology and J Pract Med.

Zhuofan Chen is professor, chief physician, PhD, PhD supervisor, and Deputy director of oral implant division, affiliated dental hospital of Sun yat-sen University. He is also Member of standing committee of implant association of CSA, Committee of Guangdong oral medical association dental implant professional committee, and Vice president of Hong Kong dental association.

Facing the challenge—management of complicated cases in implant-related clinical practice



Moderator: Yanmin Zhou

The challenges and the strategies in the dental implantation of DM patients

It has been well acknowledged that diabetes mellitus (DM) is one of the major risks of dental implantation, usually with poorer osseointegration and higher failure rate compared with normal population. However, little progress has been made in the underlying mechanism, although it can be really important to the clinical practice. This presentation, given according to our studies, will address the very distinctions in the clinical features and the prognoses between DM patients and normal ones when accepting dental implantation restoration and try to find out proper ways to handle the distinctions. The information will be provided for reference to all the colleagues who are committed to improving the success rate of dental implantation in DM patients.

Speaker: Yingliang Song

Implant treatment in osteoporosis patients—clinical consideration of evidence-based medical treatment

Osteoporosis is characterized as a metabolic disorder with reduced bone in unit volume. The reduced healing speed, poor osseointegration in these patients has greatly limited the success rate of implant treatment. Furthermore, Osteoporosis patients being treated risk potential osteonecrosis, which affects the success rate even more. This has long been a big challenge for implant treatment. The surface treatment of modern implants has eased this challenge to a certain degree. However, the risk for these patients is still higher and some specific protocols need to be adopted. This lecture will address the clinical consideration of implant treatment in Osteoporosis patients from an evidencebased medicine point of view.

Speaker: Zhonghao Liu

Part 2

Moderator: Bin Shi

Esthetic challenge of implant treatment—soft and hard tissue management in anterior region

The expectation of esthetic results of implant treatment has been elevated with the development of new technology. In many cases, it has been a great challenge for the clinician to achieve a predictable result. How to predict the result and manage the risk has become a big factor of a successful treatment.

Speaker: Shulan Xu

Long-term result evaluation of sinus lifts

This presentation will review the cases that used sinus lift with allograft material at the posterior maxilla between 2004 and 2015. The Xive S implants had been placed in the treatment protocol. In this lecture, the selection of an appropriate patient, simultaneous or delayed implant placement, treatment principles and surgical technique will be discussed.

Speaker: Zhuofan Chen

Abstract book Scientific program and Faculty

Joey Chen



Clinical applications in immediate implant treatment

Joey Chen got his prosthodotics certificates from the University of California San Francisco (UCSF) in 2004 and implantology Academician at Loma Linda University, USA where he was employed as assistant professor. Dr. Chen has over 15 years experience in implantology and his specialty is esthetic implantology, immediate placement and guided bone regeneration He is the trainer of gIDE international Esthetic Dentistry Clinician Certificate Course, member of AO, EAO and Honorary member of Omicron Kappy Upsilon Dental Academy, USA. Immediate implant placement and provisionalization technique offers several advantages over delayed treatment protocol: shortened overall treatment time, less number of surgeries, and maintenance of the soft tissue contour. The Astra Tech Implant System EV has design features particularly suitable for this treatment protocol. This presentation will discuss the clinical applications of the EV system in achieving optimal esthetic results in immediate implant therapy.



Cherng-Tzeh Chou

Management of healthy peri-implant tissue prevention and treatment of infection

Cherng-Tzeh Chou is DDS Taipei Medical University, M.S. Taipei Medical University, PhD, Nihon University, Diplomate, American Board of Periodontology. He is also Clinical Assistant Professor, Taipei Medical University, Director, Taiwan Institute of Dental Education & Research, Head, Right Dental Clinic, Chair, Asia-Pacific Association of Implant Dentistry. Research interests include biomaterial in periodontal regeneration, implant therapy and tissue healing. The importance of preventive oral care, both professional and home care, is well accepted. Is it possible to maintain health around an implant in the same way as with the natural tooth? Can new methods or equipment help or is it just another commercial trend? What can we do if there is an infection around the implant? A total tissue care concept is the only predictable way, starting at the time of tooth extraction. Saving bone volume, maintaining good soft tissue, minimizing the surgical trauma, using implants with conical connection and platform switch design, assure patient compliance and regular hygiene maintenance could be the answers.

Lyndon Cooper

Moderator Inspiration TALKS—the evolution of implants Teeth for a lifetime

Lyndon Cooper is the Associate Dean for Research, and Head of the department of Oral Biology at the University of Illinois at Chicago (UIC). His research areas deal with osteoblast immune system interactions, and dental implant therapy. His passion is to work in multidisciplinary teams and the mentorships of students and young faculty. In an era where so much attention is placed on immediate therapies in implant dentistry and product innovation is so rapid, there is little time to step back and ask "what about our future?" Is it possible to provide implant supported "teeth for a lifetime"? This presentation will examine the current knowledge regarding longer term dental implant therapeutic outcomes and suggest emerging challenges and some key opportunities to address improvements in the longevity of implant treatment. Today, in the 4th decade of experience with endosseous dental implant therapy, we acknowledge this responsibility of providing implant-supported "teeth for a lifetime".

253

Marco Degidi

New prosthetic options in the edentulous patient

Marco Degidi is a distinguished oral surgeon, keynote speaker, university professor, and researcher who has published over 130 peer-reviewed articles. His work, research and papers have focused on the development of a number of innovative techniques for implant placement and immediate loading, as well as the role of chairside dental skills in maximizing the benefits of new technologies for implant-supported prostheses. Total edentulism and terminal dentition are widespread, common and an important social issue. The most common solution is a screw-retained prosthesis supported by a minimum of four implants, when possible. However, some questions still need answers—When is immediate or delayed loading the best option? What materials should be used for the prosthesis? How should the patient's oral hygiene be managed? How should possible complications be dealt with? Prosthetic solutions that make it possible to create quality, innovative, and easy-to-maintain prostheses at a reasonable cost will be presented.



Feilong Deng Member of Scientific Committee Shanghai

Early loading of splinted implants in the posterior maxilla—a multicenter prospective study

Feilong Deng, Professor, is the Director of Department of Oral Implantology, Guanghua School of Stomatology, Hospital of Stomatology, Sun Yat-sen University. He is also Vice chairman of the Chinese Association of Oral Implantology and Member of the editorial board of the Chinese Journal of Oral Implantology and Chinese Journal of Stomatological Research. His research fields include dental implant materials, bone regeneration, esthetics in dental Implant, All-on-4 and CAD/CAM in dental implants. Patients' expectations of dental implant treatment are growing; they require their restorations faster, but still expect a safe treatment with high success rate. So, should early loading be considered more and more as a routine? A study will be introduced to evaluate the efficacy of OsseoSpeed TX implants in a Chinese population. It's an open, prospective and multicenter study, evaluating the long-term clinical efficacy of the early loading of two or three splinted implants. Objectives included marginal bone level alterations, overall implant survival rate, peri-implant tissue conditions and safety status. The 3-year follow-up results will be presented.



Ping Di

New advancements in immediate implant restoration

Ping Di is Chief Physician, Associate Professor, and Masteral Supervisor, as well as President of Department of Oral Implantology, Peking University School and Hospital of Stomatology. She is also Member of the Standing Committee, Chinese Society of Oral Implantology, Member of the Standing Committee, Beijing Stomatological Association-Beijing Society of Implantology and Aesthetics, and Senior officer Health Care Specialist. Her research focuses on edentulous implant restoration, immediate implant restoration, digital immediate prosthesis, and implant esthetics. With the development of implant treatment, the number of patients requiring immediate restorations are constantly growing. New standards for esthetics, safety and functionality have been established. Additionally, new technologies have been developed in this area providing more reliable solutions to clinicians and patients. This lecture will review the clinical application of these new advancements.


Jocelyne Feine



Exploring quality of life in edentulous elders

Jocelyne Feine is Professor in the Faculty of Dentistry, McGill University and Editor-in-Chief of the JDR Clinical and Translational Research journal. Professor Feine is a recognized world leader in the assessment of therapies for chronic orofacial conditions, particularly pain and tooth loss. Her national and international studies emphasize the quality of life and patient-based outcomes most relevant for palliative therapeutic goals. From randomized clinical trials to technology assessment, knowledge transfer and health care management, her work covers the continuum of discovery to action.

The criteria that we use to evaluate our quality of life changes over time and in response to life events; it also depends on our expectations. For older edentulous individuals, quality of life is linked to how well they function with their prostheses. In this talk, Professor Feine will describe the impact that implant retention can have on quality of life for this population.



Peter Gehrke

The impact of implant-abutment junction on restorative treatment concepts

Peter Gehrke takes an eager interest in his clinical work as implant prosthodontist to pursue a true multidisciplinary approach in benefit of the patient. His research activities focus on restorative implant dentistry, with special emphasis on esthetics and latest developments of CAD/CAM technology. Clinicians today have access to a wide scope of new technology, tools and materials to utilize in their function- and esthetic-oriented practices. A clear blueprint to designing and sequencing treatment plans is necessary to incorporate synergistic surgical and restorative protocols on implants with conical and flat-to-flat implant abutment connections. Prosthetic options for the rehabilitation of the partially edentulous and edentulous patient will be discussed.

Barry Goldenberg

Options for the complete arch rehabilitation with implants—prosthodontic and biomechanical principles

Barry Goldenberg explores computer utilization in the diagnosis and treatment planning for implant dentistry during his lectures. He is a member of the American College of Prosthodontists, the ADA and the Academy of Osseointegration. He is also a fellow in the ICOI and a Master in the IPS section of the ICOI. Dr. Goldenberg has been restoring implants since 1986 in his St. Louis County private practice, which is limited to Prosthodontics and Implant Reconstruction. Restoring the edentulous arch presents many options. Conditions for each patient treatment depend on a variety of different factors. This presentation will help clinicians and their laboratory partners gain understanding and confidence in recognizing and restoring these patients. An overview of restorative procedures will be given so that the team will be able to decide on the appropriate solution for achieving optimal results for each individual.



Jiansheng Huang

Solution-oriented treatment for implant-supported immediate functional restoration in edentulous patients

Jiansheng Huang is Chief Physician, Professor, Former VIP center dean of Guangdong Province Stomatological Hospital, Masteral Supervisor of Frankfurt University Implantology postgraduate program and Southern Medical University, Guangdong Province Cadres Health Care Professionals, the standing committee of International oral reconstruction scientific committee (FOR) China branch and The director of the third session of Guangdong Province Stomatological Association. He is also the editor of the Chinese edition of "Clinical Oral Implants Research." He has published over 90 papers in domestic and foreign magazines, including SCI. This lecture focuses on the reconstructive process of edentulous patients, illustrated by a large number of clinical cases. The process from the pre-surgical evaluation of the residual bone, including an esthetic evaluation, to the selection of an appropriate surgical technique will be presented. Moreover, the timing and performance of the prosthetic restoration, including the choice of correct material and type of restoration, and finally the critical follow-up and maintenance phase, all to achieve a successful treatment, will also be discussed.



Theofilos Koutouzis

New perspectives on peri-implant tissue dynamics and health maintenance

Theofilos Koutouzis is Associate Professor and the Graduate Program Director at the Department of Periodontology, College of Dental Medicine at Nova Southeastern University, Fort Lauderdale, Florida. He is a Diplomate of the American Board of Periodontology. He has published research on periodontal disease management and dental implant dentistry. One of the most essential factors for successful longterm treatment outcomes stems from preservation of peri-implant bone. The Ankylos implant system has a long-term documentation of successful clinical performance. One of the unique, but also controversial features of the Ankylos implant system is the subcrestal implant placement. This presentation will discuss important factors for peri-implant bone maintenance and will focus on subcrestal placement of the Ankylos implant system as a factor to prevent biologic complications.



Mischa Krebs

Absolute precision—a prerequisite for single-visit reconstructions and outstanding clinical success

Mischa Krebs is assistant professor in the department of oral surgery and implant dentistry of the Goethe University, Frankfurt, Germany and private practitioner. His research focuses on clinical trials and new digital technologies. His passion is to improve clinical results and patient comfort with new digital workflows. Minimal invasive, safe, time and cost effective treatment concepts that is what our patients dreamed of concerning reconstructions of missing teeth with dental implants. Thanks to the amazing possible precision of full digital workflows in planning and in guided surgery we have for the very first time in surgery the possibilities to fulfil these dreams. The precise transfer of a virtually planned surgery into the patient allows for prefabrications of patient individual abutments and provisional single-tooth reconstructions. Besides 3D-imaging and planning can help to avoid grafting and reduce patient morbidity. Additionally these concepts are followed by an amazing soft-tissue response which leads to outstanding clinical results—clinical success.



Hongchang Lai Member of Scientific Committee Shanghai



Moderator Digital technology and workflows

Hongchang Lai is the Chief physician, Professor, PhD supervisor and Dean of Dental Implantology Department of Shanghai Ninth People's Hospital, Shanghai Jiaotong University School of Medicine. He is also the vice chairman of Chinese Stomatological Association Dental Implantology division, Member of European Association for Osseointegration, Editorial board for Clinical Oral Implants Research, Journal of Prosthodontics and the Chinese version of Clinical Oral Implants Research. As the first or corresponding author, he has published more than 30 clinical research papers on dental implantology.



Dehua Li

Co-Chairman Scientific Committee Shanghai

Early loading of narrow dental implants in anterior jaw areas—a multicenter prospective study

Dehua Li, Professor, is Director of Department of Oral Implants, School of Stomatology, the Fourth Military Medical University. He is also President-past, Chinese Society of Oral Implantology of Chinese Stomatological Association. His expertise includes advanced bone augmentation, implant esthetics, and computer assisted implant surgery. He is the author of over 100 publications in scientific journals and more than 20 of them published in SCI journals, and a wellknown national and international speaker. A common challenge in implant dentistry is the limited space in the upper lateral and lower incisor areas to insert an implant of normal size. In such cases, a 3.0 mm narrow implant could be a good solution. This lecture will describe a study evaluating the long-term clinical efficacy of the 3.0mm diameter OsseoSpeed TX implants in a Chinese population, utilizing one-stage surgery with an early loading protocol, with 3-year follow-up. Results of marginal bone level alterations, overall implant survival rates, peri-implant tissue conditions and related clinical cases will be presented.

Moderator & Speaker Long-term success in implant treatment—a journey in implant dentistry on three continents

Ye Lin Chairman Scientific Committee Shanghai

Implant design development and clinical significance Moderator Outlook on a bright future

Ye Lin is Vice President of Peking University School of Stomatology and Professor of Implant Center. He is Past-President of China Society of Oral Implantology. He has published several articles on implant dentistry and he lectures nationally and internationally on oral implantology. His research focuses on alveolar augmentation technology and implant esthetics.

Since the 1980s, oral implantology has been widely and rapidly applied based on the theory of osseointegration. Implant-supported restoration has gradually replaced traditional treatment as the prosthetic option for the rehabilitation of the partially and edentulous patient. At the same time, clinicians are more focused on how to improve the long-term esthetic outcome and how to increase patient satisfaction. To achieve optimal clinical results, clinicians pay more attention to improving surgical, prosthetic and even laboratory techniques instead of implant design development and implant selection. However, the progress of oral implantology is closely related to the development of implant design, and the concept of the design also affects the long-term clinical result. This presentation will discuss the development of implant design and clinical significance based on clinical observation and case follow-up. The cases are selected from the more than 30,000 implants that were placed by Peking University Stomatology Hospital Implant center over the past 20 years.



Yi Man Member of Scientific Committee Shanghai

Digital implantology-clash between vision and reality

Yi Man, Associate Professor, is the Chair of Department of Oral Implantology, West China School/Hospital of Stomatology Sichuan University, as well as Postgraduate instructor and the standing member of the Professional Committee of Oral Implantology, Chinese Stomatological Association. Based on his clinical work, he has improved many surgical and restorative techniques for implantology and published related articles on international journals. He has also published over 20 clinical and research articles. The advance of digital dentistry has brought implantology endless new possibilities. It helps to bring better precision and predictability to implant treatments. At the same time, the digital workflow has also brought new challenges and learning needs. While we are enjoying the better prospective of digital dentistry and the revolutionary changes that it brings, we need to clearly understand its boundaries.



Huanxin Meng

A prospective, multi-center study with 3-year follow-up assessing early loading with short, 6 mm implants in posterior regions

Huanxin Meng is Professor of Department of Periodontology, Peking University School of Stomotology. She is a former President of Chinese Society of Periodontology. She has published over 250 scientific papers, is Editor-in-Chief of several national text books in Periodontology. She has served as a Member of the Editorial Board of "Journal of Periodontal Research" and a Member of the Editorial Advisory Board of "Journal of Periodontology", Members of 6 Editorial Board of Chinese Journals of Stomatology. Dr. Meng is co-editor-in-Chief of "Periodontology 2000", 2011, volume 56. In many implant cases, available bone height can be limited in the posterior area. This is especially true for patients with a history of periodontitis. This lecture will focus on a study in a Chinese population, evaluating short implants (6.0 mm OsseoSpeed TX) in cases with limited bone height in the posterior region. In the study, one-stage surgery with an early loading protocol was used. The results of the study, including marginal bone level alterations, overall implant survival rate, peri-implant tissue conditions and related clinical cases will be presented.

Nigel Saynor



Contemporary implant concepts—predictable outcomes

Nigel A. Saynor, BDS MSc, General Practitioner, is a general dentist in a specialist referral practice, as well as a Clinical Tutor at the University of Manchester, UK. His main focus for his patients is predictable long-term esthetic outcomes. The challenges of producing natural restorations that are imperceptible from real teeth is an ever increasing patient demand, which presents the clinician with a series of interesting and often difficult challenges. The principles behind the development of the Ankylos implant System guide us through a minefield of pitfalls to achieve a restoration that you would be happy to have in your own mouth. The lecture will provide indications for treatment modalities using Ankylosophy.



Clark Stanford



Why document evolution?

Clark Stanford is the Dean at the University of Illinois at Chicago (UIC), College of Dentistry and UIC Distinguished Professor. His research areas deal with osteoblastic gene expression, signally pathways, medical device designs and human clinical trials. His passion is to work with talented interdisciplinary investigators and clinicians to develop innovative approaches to improve patient care. Patient come to us with a range of desires, needs and assumptions. For missing teeth, the use of oral implants provides a range of what we have at our disposal (a medical device), deployed in a manner of how and when we use it (e.g., immediate loading, immediate placement, angled implants, etc.) To truly understand patient's perspective(s) we need to understand why they want care. Why defines the jobto-be-done and only by understanding the job can we provide the best in predictable patient-oriented outcomes of care using oral implant therapies.



Yucheng Su Co-Chairman Scientific Committee Shanghai

Moderator Surgical confidence and advanced techniques

Yucheng Su, DDS, PhD, is Professor and Director of Dental Implant Center, Peking Union Medical College Hospital, Chinese Academy of Medical Sciences. Chairman of Beijing-Citident Dental-Implant Technology College. International Team for Implantology (ITI) Fellow, International College of Dentists Fellow. The Academic Committee Member of Chinese Academy of Medical Sciences, Special Member of Chinese Association of Oral Implantology. Designate chairman of Subsociety of oral implantology, Chinese Stomatological Association. Chairman of Subsociety of oral implantology, Beijing Stomatological Association, China. Deputy Editor of J. Oral Science Research, Editor of Oral Implantology Since 1993, enjoys Special Government Allowances. The study and clinical work focus on Implant Surgery, Esthetic Implant Dentistry and GBR.

Tetsu Takahashi



Bone augmentation—the future

Tetsu Takahashi is the General Vice-Director of Tohoku University Hospital. He runs the Division of Oral and Maxillofacial Surgery. His research areas deal with bone augmentation and reconstructions of jaw bones. His passion is to establish a novel concept of GBR, so-called "Dynamic GBR". In the clinical setting, bone augmentation (BA) procedure is inevitable. However, BA procedures such as bone graft and GBR are invasive to the patients, and accompany risks of complications. In addition, bone substitutes (BS) are osteoconductive, therefore, indications are limited only for the relatively small defects. The future BA procedures should be more predictable, and BS should be ultimately osteoinductive. In this lecture, future BA and BS will be discussed.



Daniel Thoma

Meeting patient demands—short and narrow implants to avoid major bone augmentation

Daniel Thoma is a Head of Academic Unit. His main scientific interest is related to hard and soft tissue regeneration, whereas clinically, he focuses on the comprehensive treatment of complex, partially edentulous patients applying all available options of reconstructive dentistry including dental implants. Dental implants supporting fixed reconstructions are an integral part in reconstructive dentistry resulting in high survival rates in the long run. Patient demands, however, are of increasing interest and implant therapy is shifting towards minimal invasive treatment concepts. Specifically, short and narrow implants recently demonstrated similar outcomes to standard length and diameter implants, but offered benefits in terms of costs, time and a reduced patient morbidity.

Huiming Wang

Member of Scientific Committee Shanghai

Moderator A clinical study program in China—science and clinical experience after 3 years

Huiming Wang, Professor, is the Director of Hospital of Stomatology, Zhejiang University School of Medicine and the vice chairman member of the Professional Committee of Oral Implantology and the Professional Committee of Oral and Maxillofacial Surgery, Chinese Stomatological Association. He is also Branch center chief scientist of Astra Tech Implant System multicenter clinical research. He is a well-known expert in Oral and Maxillofacial Surgery and Oral Implantology, He has published over 80 articles about maxillo-facial tumors, maxillo-facial tissue repair and reconstruction, oral implantology and oral tissue engineering techniques.





Xing Wang

Honorary President Scientific Committee Shanghai

Xing Wang is Professor at Peking University School of Stomatology, Honorary President of Chinese Stomatological Association, Vice President of Chinese Medical Doctor Association, Honorary Director of the Chinese Medical Association, The Ninth Honorary Member of China Association for Science and Technology, Honorary Professor of School of Dentistry, The University of Hong Kong, and Honorary Member of ADA (US). He has participated in 11 monographs as the chief writer and edited 22 as the key editor. He also published 230 academic papers in domestic and foreign journals. Zuolin Wang Co-Chairman Scientific Committee Shanghai

Moderator Life restored—solutions for the fully edentulous patients

Zuolin Wang, DDS, MD, PhD, is Professor and Doctoral Supervisor. His academic appointments include Chairman of Committee of Oral Implantology, Chinese Stomatological Association, President of Shanghai Stomatological Doctor Association, Director of Shanghai Engineering Research Center of Tooth Restoration and Regeneration, and Chief Editor of Journal of Oral & Maxillofacial Surgery.





Paul Weigl

Implant therapy and the virtual patient—safer and faster final outcome in reality

Paul Weigl graduated from the University of Munich Dental School in 1989. Since 1992 he has worked as an assistant professor and director of preclinical studies for the Department of Prosthodontics of the Johann Wolfgang Goethe-University Frankfurt am Main. Dr. Weigl has special focus in the field of prosthetics on implants. He is also a senior specialist at the Department of Prosthodontics, University of Frankfurt. Additionally he runs R&D projects to develop an effective and minimally invasive therapy concept for predictable esthetic results. Since four years he runs as a head the Department of Postgraduate Education. Today's medical imaging techniques allow for an excellent 3D representation of oral tissues and generate a so-called virtual patient. Not only the ideal implant position can be planned, but the entire treatment can be simulated with the appropriate software—with the future use of virtual glasses, too. The therapy performed on the real patient is safer and, due to the pre-produced patient specific components (abutment / crown & bridge) faster than conventionally free-hand placed and subsequently by an impression recorded implants. This will lead to the final breakthrough in implantology—replacing any lost tooth with an implant with a crown.

Guangyan Yu Honorary President Scientific Committee Shanghai



Guangyan Yu is a senior professor of oral and maxillofacial surgery at Peking University School of Stomatology. He is president of Chinese Stomatological Association and honorary president of Society of Stomatological Doctor Chinese Medical Doctor Association. He served as dean of Peking University School of Stomatology between 1996 and 2009.



Homa Zadeh

Protocols to minimize peri-implant bone loss

Homa H. Zadeh, DDS, PhD, is a tenured Associate Professor and the director of the post-doctoral periodontology program at the University of Southern California (USC), Herman Ostrow School of Dentistry and a diplomate of the American Board of Periodontology. Dr. Zadeh's clinical and research expertise focus on tissue engineering of bone and soft tissues, as well as minimally invasive implant therapy protocols to avoid augmentation. Peri-implant marginal bone loss can compromise implant function and may ultimately lead to implant failure. Therefore, it is important to understand the many causes of marginal bone loss and try to prevent them. This presentation will review the causes of early, as well as, late marginal bone loss and makes clinical recommendations in an effort to optimize the longterm health of implant-supported restorations and their surrounding tissues.

Jincai Zhang



Moderator Peri-implant tissue health

Jincai Zhang, professor, chairman of Zhejiang Tongce dental medical investment management group co., ltd. Vice-president of CSA. Engaged in periodontal disease causes and prevention, the relationship between periodontal disease and systemic health research more than 30 years. Won several national and provincial scientific and technological achievements and teaching achievement prizes and the state council special allowance. Published more than 200 articles in domestic and international academic journals, of which more than 40 SCI papers.



Yu Zhang

Achieving a harmonious environment around implants—the surgical aspect

Yu Zhang is an MD, Deputy Chief Physician, Deputy Chairman of Department of Oral Implantology, Peking University School and Hospital of Stomatology, Associate Professor, and Masteral Supervisor. He is Academic secretary of International Oral Reconstruction Scientific Committee, China branch. His research interests include oral implant restoration with complicated conditions, the esthetic problems and bone regeneration. He often lectures at both national and international congress and has published more than 10 articles in SCI and other major journals. There are a lot of factors influencing the outcome of dental implant treatment. From the perspective of surgeons, one of the most important goals of implant therapy is to achieve a harmonious environment with stable soft tissue and bone tissue around the implants. It is of crucial importance to know and choose the proper technique for each patient. Key success factors will be discussed.

Lei Zhou

Immediate loading in the fully edentulous jawdesign and technical procedures



Lei Zhou is Professor. Doctoral Tutor. Deputy Director of Stomatological Hospital of the Southern Medical University, Guangdong Provincial Stomatological Hospital, Director of the Implant Centre of Guangdong Provincial Stomatological Hospital. Government Special Allowances Experts, Fellow of International Team for Implantology (ITI), Former director of Department of Education in China of International Team for Implantology, Deputy Director of the Implantology Committee of Chinese Stomatological Association (CSA). He is also Honorarv president of the Macau Association of Oral Implantology, Deputy Director of the Professional Committee of Guangdong Implantology Association, Deputy Director of the Professional Committee of Guangdong Provincial Stomatology and Education, Deputy Director of Guangdong Medical Doctor Association,

Council member of Guangdong Medical Association, and Standing council member of the Guangdong Stomatological Association.

In the traditional implant-supported restoration, waiting for the implant to osseointegrate is needed before the prosthetic reconstruction. Weeks to months with missing teeth usually is an intolerable time for the edentulous patients. This situation is a common factor and obstacle to the patient's choice of restoration. Therefore, it is of great clinical significance to be able to use immediate loading to solve the patient's chewing, language function and esthetic needs as soon as possible. To achieve immediate loading and avoid osseointegration failure, using the right design and following a standard operating procedure are needed.



Yongsheng Zhou

Moderator Restorative focus—beginning from the end

Yongsheng Zhou is the Secretary of Party committee of Peking University School of Stomatology, Director of the Department of Prosthodontics, as well as Professor, Chief Physician and Doctoral tutor. He has been selected to the "New Century Talent of the Ministry of education" program. He is also the vice chairman of the Oral and Maxillofacial Prosthetics Committee of Chinese Stomatological Association (CSA), vice chairman of the Prosthodontics Committee of Chinese Stomatological Association (CSA), member of the Asian Association of Prosthodontics (AAP), member of the scientific committee of the International College of Prosthodontics (ICP), Academician of the International College of dentists (ICD), member of the National Standardization Technical Committee. Concurrently, he serves on the editorial board member of Chinese Journal of Research, Practical Oral Medicine, and six other academic journals.



Abstract book Poster Competition

RESEARCH CATEGORY

CHN-001

Effect of different platform-switched width on peri-implant bone remodeling

Feng, Wei*; Geng, Jinyou; Xue, Min

Background: To explore the influence of platformswitched width on peri-implant bone remodeling.

Material and Methods: From June 2013 to June 2015 29 patients with 40 Ankylos implants in the posterior region were followed up with 3.5 mm (20 implants) and 4.5 mm (20 implants) diameter. The vertical and horizontal bone mass were evaluated by means of X-ray from immediate and one year after operation. The data was analyzed with SPSS13.0 software package for paired t test.

Results: No significant difference in the vertical and horizontal bone mass was found between groups (P>0.05), but the rate of bone deposition in 4.5 mm group was larger than in 3.5 mm group, and the average bone deposition width was statistical differences between groups (P <0.05). **Discussion and/ or Conclusions:** Increasing the platform-switched width is beneficial to maintain bone mass surrounding the implant. In the case of sufficient alveolar bone the implant with larger platform-switched width should be chosen.

不翻瓣与翻瓣种植的对比

Guo, Sheng*

目的: 评价Ankylos种植系统常规种植体在前牙区行即 刻种植潜入式和非潜入式的临床效果.

方法:对18例拔牙患者同时行Ankylos种植系统即刻植 入种植体,4-6个月后行冠修复,并对其进行定期的临床和 放射学随访观察.结果:18例患者共植入20枚种植体,均 行引导骨组织再生技术,其中10枚放愈合帽,另外10枚放 封闭螺丝,严密缝合。修复后经3-24个月观察,成功率为 100%.。 结论:选择合适的病例,配合采用引导骨组织再生技术处理ankylos种植系统即刻种植非潜入式效果良好,避免二期手术,软组织成型更好。

CAD-CAM implant abutments: Peri-implant hard and soft tissues response after a follow-up of 4 years

Lops, Diego*

Background: The aim of the present study was to evaluate the prognosis of CAD-CAM implant abutments and the respective peri-implant soft tissues response.

Materials and Methods: The clinical trial was designed as a multicenter study. Adults in need of one or more implants replacing teeth to be removed in the maxilla and mandible within the premolar region were recruited. Only implants restored by means of CAD-CAM abutments were selected. Zirconia. Titanium and Gold-Hue titanium abutments were included. Fixed single crowns (117) and partial dentures (102) were fabricated. Patients were followed after the definitive prosthesis installation, Clinical (PI, Plaque index, BoP, Bleeding on Probing Index, and Papilla Index) and radiographical (MBL, Marginal Bone Level) parameters were assessed at the yearly follow-up visit. Moreover, prosthetic complications were recorded. Statistical analysis was used to compare any difference in biological and radiographical parameters between different CAD-CAM abutments. Descriptive statistics were used to analyze the changes over time of clinical and radiographical parameters from baseline to the last follow-up.

Results: A total of 123 patients were included into the measurements sample. 54 implants supporting ZZ zirconia, 178 titanium and 59 Gold-Hue titanium abutments completed the follow-up examination. No implant, reconstruction, and abutment failure were recorded: therefore, the prosthetic survival after 4-years of function was 100% for all the abutments and restorations. No significant differences in biological and radiographical indexes were found between different abutments when compared each other and from baseline to the last follow-up examination.

Discussion and/ or Conclusions: The short-term survival of CAD-CAM abutments was reliable no matter of the material used for the manufacturing. Nevertheless, long-term evaluations are needed to confirm this finding.

Pain and involved factors during positioning dental implant definitive abutments: A clinical study of 152 implants

Qiu, Jing*; Shao, Shui-yi; Wang, Rui-xia; Tang, Chun-bo

Background: The aim of this study was to assess and identify clinical factors of the pain intensity during positioning dental implant definitive abutment and establish a multivariable liner regression model.

Materials and Methods: Patients receiving implant restoration was collected. Pain intensity during positioning each dental implant definitive abutment was scored using visual analog scale (VAS) and recorded. The clinical factors related to pain were measured and recorded, including age, gender, depth of the gingival cuff (DGC), time interval between secondary implant operation and final restoration (TI), diameter of the healing abutment (DHA), and platform switching or platform matching (PS-PM). Correlations between these factors and VAS score were explored by multivariable linear regression. Based on the statistical screening, a multivariable liner regression model including involved predictors was established. **Results:** This study included 71 patients with 152 implants. TI, DGC, PS-PM and DHA had statistical correlation with the VAS score and were introduced to establish a multivariable liner regression model as predictors. Age and Gender had no significant effect on the VAS score. The regression equation was acquired and R2 was 71.6 %. The established model was proved to conform to the criterion of setting up a multivariable liner regression model.

Discussion and/ or Conclusions: TI, DGC, PS-PM and DHA had significant correlation with the pain intensity during positioning dental implant definitive abutments and the established multivariable liner regression model was reliable.

An *in-vitro* method for microleakage measurement at the implant-abutment interface

Teng, Wei; He, Yiting*

Background: The micro-gap between an implant and its abutment provides a possible channel for bacteria to migrate and colonize inside the implant, thus increasing the possibility of peri-implant diseases. The aim of this study was to develop an in-vitro method to evaluate the level of leakage through the micro-gap.

Materials and Methods: A total of 3 implants with an internal hexagonal connection were embedded in acrylic resin and abutments were screwed on by a torque wrench provided by the manufacturer to 0, 10, and 20 N•cm respectively. 10 μl of 25 wt% silver nitrate was applied to the implant platform. The samples were kept in the dark for 12 hours before being scanned using micro-CT at a resolution of 9.3 μm. Image processing was carried out using ImageJ.

Results: In the 0 N•cm sample, silver nitrate could be clearly seen in the gap under the platform and around the abutment screw. From the number of voxels that

had a grey value above the threshold of the titanium implant, the volume of silver nitrate that had leaked into the gap was calculated to be 0.160 μ l. In the 10 N•cm sample, traces of silver nitrate were found around the screw thread, the volume of which was ~0.001 μ l. In the 20 N•cm sample, no signal was found under the implant-abutment platform.

Discussion and/ or Conclusions: Measurement of implant-abutment microleakage by using silver nitrate as a contrast agent was shown to be effective in the loosened samples. However, the volume of leakage was too small to be precisely calculated in the higher torque groups. Compared to methods that require sectioning the samples to examine the level of dye penetration, micro-CT has the advantage of being non-destructive. However, further research on the effect of the scanning parameters and contrast agent is needed.

Delivery of noggin SiRNA via lipopolysaccharide-amine nanopolymersomes to enhance osteogenic differentiation of MC3T3-E1 cells

Teng, Wei*; Huang, Mingdi; Wang, Qinmei; Li, Yanshan

Background: Gene-based therapies have been widely used for treating all kinds of diseases by delivering nucleic acids into cells to induce or silence specific gene expression. RNA interference (RNAi) has recently attracted significant interest in bone tissue engineering applications. Up to now, various gene delivery systems have been developed for delivery of siRNA. We aimed to investigate the ability of lipopolysaccharide-amine nanopolymersomes (NPs) to deliver noggin siRNA to enhance osteogenic differentiation of MC3T3-E1 cells as well as exploring the possible signaling pathways that it may involve in osteogenesis.

Materials and Methods: First, we evaluated the cytotoxicity as well as cell proliferation of NPs and lipofectamine 3000. Next, we assessed the cellular uptake efficiency as well as knockdown efficiency of the target gene. We further investigated the ability of NPs loaded with noggin-targeting siRNA to induce osteogenic differentiation of MC3T3-E1 cells. Finally, we explore the possible signaling pathways that it may involve in osteogenesis.

Results: The gene transfection efficiency of noggin siRNA delivered by NPs (97.8%) is significantly higher than the commercially available lipofectamine

3000(74.6%). The gene knockdown efficiency of noggin siRNA delivered by NPs (50%) is significantly higher than lipofectamine 3000(25%). NPs loading with nogRNA not only increased ALP activity, but also enhanced BMP-2 protein, Runx2 mRNA expression and mineralization of MC3T3-E1 cells. Not only NPs, but also NPs/nogRNA increased p-Smad1/5/9 and p-GSK-3 β (Ser) protein levels.

Discussion and/ or Conclusions: NPs/nogRNA can stimulate osteoblasts maturation and differentiation at various levels, from early to terminal stages of the cell differentiation process. Moreover, the treatment of NPs combined with the employment of noggin suppression significantly enhanced osteogenic differentiation of MC3T3-E1 cells through BMP-2/ Smad1/5/8 and Wnt/ β - catenin pathways. NPs system has a great potential as a non-viral gene delivery system and may provide new opportunities for therapeutic strategies in bone repair.

Surface stiffness of catechol-functionalized polyelectrolyte multilayer films influences the behavior and functions of mesenchymal stem cells

Teng, Wei*; Wang, Qiong

Background: Surface modifications on titanium (Ti) implant via bioactive coatings have received much attention over recent decades. These modifications could result in the variations of surface stiffness of implants, which can either promote or inhibit cell proliferation and functions. In order to provide a theoretical basis for surface modification of Ti implants, the effects of surface stiffness on MSCs behavior and functions were explored.

Material and Methods: Catechol-functionalized polyelectrolyte multilayer film (cPEM) was constructed on titanium surface via layer-by-layer technique using catechol-functionalized hyaluronic acid (CHA) and lipopolysaccharide-amine nanopolymersome (CNP). The stiffness of cPEMs was controlled by adjusting the substitution degree of CHA (5%, 10% and 40%). The polished Ti was used as a control. Subsequently, the surface topography and properties of cPEMs such as chemical groups, roughness, contact angles and surface stiffness were detected. Then, MSCs adhesion, proliferation, osteogenic differentiation and gene expression were compared on cEPMs with different stiffness. **Results:** cPEMs with stiffness of (5 ± 4.5) GPa, (20 ± 5.7) GPa and (33 ± 6.9) GPa were fabricated. MSCs showed better cell response on cPEM with stiffness around 20 GPa. A reduction or growth in surface stiffness of substrates is adverse to cell response of MSCs. The highest ALP activity and calcium density were observed in cPEM-M. The ALP, COL1A1, OPN, OCLN, BSP, TGF β 1, Runx2 genes were highest detected were highly expressed in MSCs treated with cPEM-M at 4 days.

Discussion and/ or Conclusions: Surface stiffness is a key factor that affects MSCs behaviors and functions and it should not be carefully considered during the surface modifications of Ti implants. Our study also provided a novel and reliable coating on Ti implants, and focused on its biological relevance.

Aesthetic and functional reconstruction of mandibular defects with a free fibular flap and dental prosthesis

Wang, Shaosheng*; Zhang, Weiqun

Background: The vascularized fibular flap provides reliable reconstruction for mandibular defects. However, the cross-sectional dimensions of the fibula are similar to those of the edentulous mandible. The vertical discrepancies between the fibula and the superior alveolar ridge can negatively affect aesthetic and functional outcomes and the ability for dental rehabilitation. The vertical position of the fibular flap can be adjusted to align the fibula superiorly, centrally, or inferiorly with the remaining mandible. The aim of this study was to compare aesthetic and functional results with two types of implant-supported dentures based on the vertical position of the fibular flap.

Material and Methods: A retrospective review was performed on 163 patients who had undergone mandibulectomy from 2000 to 2012. Dental implants were placed in 28 patients. The aesthetic and functional outcomes of these patients with different vertical positions of the fibula were compared. **Results:** A total of 195 implants were placed in 26 patients, with a success rate of 97.4%. Occlusal function was satisfactory and chewing function was greatly improved in all 26 patients. Speech improvement was noticed in 21 patients. Aesthetic satisfaction rate was 81%. Patients with superiorly and centrally aligned fibular bones were more satisfied with their lower facial contours and their lower lip and chin profiles than those with inferiorly aligned fibular flaps.

Discussion and/ or Conclusions: A single barrel fibular flap aligned superiorly with the alveolar ridge or centrally aligned may improve aesthetic and functional outcomes.

Effects of different human-induced pluripotent stem cells on bone engineering

Song, Yang*

Background: Mesenchemal stem cells (MSCs) derived from human induced pluripotent stem cells (hiPSC-MSCs) could provide patient-specific cells with great regenerative potential with promise for bone tissue engineering. (1) generate hiPSC (Foreskin 1)-MSCs from new born foreskin fibroblast, hiPSC (CD34+)-MSCs from adult marrow CD34+ cells and human bone marrow MSCs (hBMSCs); (2) investigate the differences and similarities in proliferation and osteogenic differentiation among these three kinds of MSCs seeding on calcium phosphate cement (CPC) scaffolds.

Material and Methods: hiPSC (CD34+) and hiPSC (Foreskin 1) were cultured to form embryoid bodies (EBs), and hiPSC-MSCs were migrated out of EBs. hiPSC-MSCs and hBMSCs were seeded on RGD-iofunctionalized macroporous CPC in osteogenic medium for 14 days. Cell attachment, proliferation, osteogenic differentiation, and mineral synthesis were investigated in vitro.

Results: All three kinds of cells had good viability when attached on CPC scaffold and yielded an increasing live cell density with time. hiPSC (CD34+)-MSCs achieved the highest live cell density increase (10.2-fold) from 1 to 14 days, compared to hiPSC (Foreskin 1)-MSCs (8-fold, p<0.05) and hBMSCs (5.8-fold, p<0.05). At 4 days, the bone mineral synthesis by hiPSC (Foreskin 1)-MSCs and hBMSCs adherent to CPC scaffold was higher than by hiPSC (CD34+)-MSCs (p<0.05). At 14 days, there was no significant difference in mineral synthesis among these three types of cells. Both hiPSC (Foreskin 1)-MSCs and hiPSC (CD34+)-MSCs had peaks in osteogenic expressions similar to hBMSCs in alkaline phosphatase, osteocalcin, collagen I, and Runx2.

Discussion and/ or Conclusions: Both hiPSC (foreskin 1)-MSCs and hiPSC (CD34+)-MSCs showed high osteogenic potential on CPC constructs, matching that of hBMSCs which require a surgical procedure to harvest.

自体块状骨移植应用于前牙区水平向骨量不足患者种植修复的临床研究

Yang, Yi*; Li, Ming; Zhu, Zhijun; Sheng, Ming

背景:前牙区由于外伤、先天缺牙等原因导致的水平向 重度骨量不足,对于这类的患者传统的GBR技术难以获 得良好的植体初期稳定性,同时骨形态维持效果不佳。 采用自体块状骨移植能为种植体植入创造良好条件,同 时获得更佳长期的稳定和美学效果。

材料和方法:2014/05-2016/12共完前成牙区自体块状骨移植12例,取骨位置为颏部及下颌外斜线,共植入种植体15枚。

结果:其中1例颏部取骨患者出现短暂下颌前牙感觉异常,15枚种植体均顺利完成修复,平均随访期月12个月,随访期未发生种植体松动脱落,种植体留存率100%。

讨论: 自体块状骨移植应用于前牙区水平向骨量不足的 患者是有效的方法, 颏部取骨可能会导致局部神经损 伤, 同时应注意创口的处理避免开裂等情况。

The effects of Xive implants on osseointegration after penetration into the maxillary sinus cavity at different depths

Yin, Guozhu*; Feng, Jing

Background: The penetration of dental implant into maxillary sinus, combining with sinus membrane perforation might increase the risks of failure of implantation. The study was administrated to investigate the effects of the XIVE implants on osseonitegration after penetration into the maxillary sinus cavity in different depths and evaluate sinus health in beagle dog model.

Materials and Methods: 20 XIVE implants were included in the study and randomly placed in 10 female dogs in the bilateral first maxillary molar area and divided into four groups according to the protruding of implant tips (group A = 0 mm, group B=1 mm; group C = 2 mm, and group D = 3 mm). The maxillaes with the implant were harvested 5 months after implantation for image examination and histological analysis.

Results: The maxillary sinus in the whole groups showed no signs of inflammation during the 5-month period of the study. The tips of the implants in group B and group C showed partially new bone coverage with fully newly formed membrane covered, while depths of 3 mm in group D showed no membrane coverage and the dental implant fixture sites were exposed in the sinus cavity. However, there were no significant differences in the bone-to-implant and implant stability among the groups(P>0.05).

Discussion and/ or Conclusions: Despite the protrusion extents, penetration of XIVE implant into the maxillary sinus with membrane perforation does not compromise the sinus health and the implant osseointegration in beagle dog model.

种植即刻修复在上前牙骨缺损条件下的临床应用初探

Zhang, Lei*; Xia, Yulan; Tang, Ting; Hou, Yongfu; Liu, Kun

背景:上前牙缺失后常伴有唇侧骨缺损,增加了美学风险,随着GBR及即刻种植即刻修复技术先后提出,有效解决了因骨量不足引起的美学问题。本项目通过临床对比研究,探讨上前牙伴骨缺损患者行种植即刻修复的可行性。

材料和方法:筛选上前牙需要种植并伴唇侧骨缺损的病例,随机分为实验组(即刻修复组)和对照组(非即刻修 复组)各30例,植入Ankylos种植体,并获得足够的初期 稳定性,同期行GBR。实验组要求于24小时内戴入临时 义齿; 对照组常规愈合6月后行二期手术。对比两组患者的种植体存留率及美学修复效果。

结果:目前进行约30例,实验组获得与对照组相似的美学效果。

结论:上前牙伴骨缺损的患者可行种植即刻修复合并 GBR,但远期效果有待进一步观察。

CLINICAL APPLICATION

CHN-013

Fixed prosthesis supported by implants—new possibilities of retention: faster, simpler, more effective

Bressan, Eriberto*; Sbricoli, Luca; Ricci, Sara; Guazzo, Riccardo; Stellini, Edoardo

Background: Nowadays, dental implantology is a reliable technique for treatment of partially and completely edentulous patients. The achievement of stable dentition is ensured by fixed dental prostheses. Morse taper system can provide fixed retention between implants and dental prosthesis without cement or screw.

Material and Methods: The authors present a novel method for rehabilitation of fully edentulous patients, combining the morse taper conometric concept and the full fixed dental prosthesis.

Results: This system presents advantages both for clinician and patients, in term of time, cost and biological point of view. This prosthesis is fixed for patient but easy to remove for dentist and this system could help to maintain the health of soft peri-implant tissue.

Discussion and/ or Conclusions: Actually, also data on both in vitro and clinical performance of cone morse retention are available, to confirm such trend on alternative of implant-supported restoration.

上颌中切牙种植美学修复一例

Chen, Si*

背景:22岁女性外伤2周,11缺失,21缺损,松(+)。CBCT示11牙槽骨唇侧局部少量吸收,21根折。

材料和方法:局麻下微创拔除21,探得唇侧骨壁局部缺损,行双侧辅助切口并唇侧翻瓣,见11、21唇侧骨板均存在约2-3mm缺损。逐级备洞后分别植入两枚Ankylos 3.5X11mm种植体,于种植体与唇侧骨板间隙和唇侧骨板外侧植入Bio-Oss骨粉0.25g,盖Bio-Gide生物膜25X25mm,减张缝合。6个月后行种植二期手术,3周后行种植体支持式临时牙修复,8周后聚醚取模,4周后行最终修复。

结果:11、21美学修复效果较好,3个月后复查无异常,患者满意。

讨论及结论: Ankylos种植体因其优良的平台转移特点 在前牙种植美学修复上具有优异表现。种植体与唇侧骨 板之间和之外进行的"夹心"式GBR植骨对恢复唇侧轮 廓有较好的作用。

Misfit of a superstructure after abutment usage and refastening on an internal slip-joint implant

Fujita, Joji*; Takeshita, Kenji; Sumi, Takashi; Taninokuchi, Hiromi; Takahashi, Tetsu

Background: A previous study mentioned that the high torque value at the time of abutment placement in internal slip-joint implants might generate a vertical displacement of the abutment in relation to the implant. In this study, we report a case where a vertical displacement might be the cause of a superstructure misfit after trying the same size abutment to the implant from which previously a same size abutment was removed after its screw was stucked.

Material and Methods: Two Astra Tech Implant (d= 4.5×11 mm) were placed in the 46 and 47 locations with the corresponding uni-abutments (45 degrees and 0.5mm height). Following this, the final full-metal bridge superstructure was placed.

Results: One year and a half after placing the superstructure, the bridge screw on the 46 implant was fractured and consequently the uni-abutment was

removed. Following this, a same size abutment was placed, but the superstructure didn't fit, so the bridge superstructure was cutted into two parts, repositioned and rebinded to each other in order to eliminate the misfit.

Discussion and/ or Conclusions: When an abutment is fastened into an internal implant, the abutment might get submerged into the implant. Additionally, it was suggested that due to masticatory forces the abutment could get submerged in a higher scale. By this submersion, displacement of the superstructure might also occur, and various complications may occur.

A prospective, multi-center study assessing early loading with short implants in posterior regions. A 3-year post-loading follow-up study.

Han, Jie*; Tang, Zhihui; Zhang, Xiao; Meng, Huanxin

Background: Few prospective studies about earlyloading of short implant have been available and very little evidence exists on the outcomes longer than 3 years. The aim of this multi-center study was to prospectively assess clinical and radiographic outcomes of 6-mm-short implants placed in the posterior maxilla and mandible applying an early loading protocol.

Materials and Methods: 45 subjects were enrolled at three study sites in China. 95 short implants (6 mm short, Ø 4 mm) were placed, two or three implants per subject, using a one-stage surgery procedure and loaded with a screw-retained splinted fixed prosthesis 6 weeks later. Follow-up took place at 6, 12, 24 and 36 months after loading. Marginal bone level changes, implant survival, clinical variables and adverse events were assessed.

Results: The survival rate for all implants placed was 95.8%. From implant loading to 3 years follow-up, mean marginal bone level changes were minimal $(0.07 \pm 0.49 \text{ mm})$ and the peri-implant soft tissue

status was healthy. The mean probing pocket depth was 2.71± 0.72 mm and the mean PPD change was 0.63 mm when compared with baseline. No major technical or biological complications occurred except for the 4 early implant losses. However, during the study period, an average of 38.7% of the implant sites presented plaque and 41.9% of the implants presented bleeding on probing.

Discussion and/ or Conclusions: 3-year data indicates that the use of splinted 6-mm-short implants is a viable treatment in posterior regions with low marginal bone resorption. Early loading after 6 weeks should be taken cautiously in patients with known risk factors. Considering the high prevalence of periodontitis, relatively poor oral hygiene in the Chinese population and short implants engaged in the bone, proper periodontal treatment before implant installation is mandatory, and strict follow-up maintenance is a prerequisite for long-term success.

A new approach to make immediate temporary restoration of Ankylos implant system in the esthetic zone

Liu, Jiajun*

Background: Immediate placement in the esthetic zone requires the clinician to be experienced and knowledgeable about esthetic diagnosis, minimally invasive extraction techniques, oral plastic-surgical procedures, accurate 3-dimensional (3D) implant placement and restoratively driven planning/ placement based on cone-beam computed tomography (CBCT) analysis. One of the most significant factors is that tissue-contour management requires prosthetic knowledge of provisionalization techniques to sculpt periimplant tissue for developing submergence contour from the implant shoulder to the mucosal zenith to adequately support the tissue.

Material and Methods: An Ankylos C/X impant 4.3*11 mm was inserted in the 11 zone, afterwhile a new method was employed to make immediate restoration. Afer 3 months, the coordination of soft tissue with neighboring tissue and the satisfactory level of patient were evaluated.

Results: In the prosthetic period, X-ray analysis showed successful ossteointegration without any failure. the aesthetic and functional results were satisfactory, as expected.

Discussion and/ or Conclusions: Many protocols have been described in the literature, hence the difficulty of building a consensus on the most appropriate technique for a success rate at least equivalent to the conventional technique. Some studies even show a greater failure rate and reserve this technique for specific cases (thick periodontal tissues, integrate osseous table, concomitant guided bone regeneration). The novel method to make immediate restoration could get ideal esthetic result and reduce the chair side time.

上颌中切牙常规种植与即刻种植美学效果自身对照一例

Leng, Dan*; Xiao, Xuhui

背景:外伤是导致上颌中切牙缺失的常见原因,牙种植 是一种理想的修复方法。现报告一外伤5月后11III°松动 即刻拔除即刻种植及21外伤缺失常规种植的病例。

材料方法: 龈沟内切口, 翻瓣, 21正中骨裂隙, 宽 1.5mm, 颊舌向深3mm, 高8mm, 刮尽肉芽, 植入 ANKYLOSØ3.5×14mm种植体1枚;11微创拔牙, 腭侧骨 板缺失3mm, 植入AnlylosØ3.5×14mm种植体1枚, 上 愈合基台(后牙平衡穿龈3mm),缺骨区行GBR术。隐形 义齿过渡, 5月后完成单冠永久修复。 结果:观察1年半红白美学效果良好。患者对美学和功能 满意。

结论:即刻种植减少了手术次数,缩短了疗程,减轻患者 痛苦。并且种植的成功率和种植体周围骨组织吸收及美 学效果并没有明显差异。

Immediate dental implant placement and restoration in the esthetic zone

Li, Jun*

背景:随着种植技术的不断发展,无论是种植医生还是 患者都已不仅仅满足于种植修复的高成功率,"即刻" 与"微创"的概念已逐步为大家所广泛关注。

材料和方法:进行微创拔牙,在三维方向上行种植体窝 洞的制备,同期采用隧道技术在唇侧进行软组织增量。 种植3个月进行临时冠塑形,牙龈塑形3个月后获得与 邻牙相协调的软组织轮廓,最后通过粘接固位完成最终 修复。 **结果:**患者在即刻种植术后6个月完成永久修复,种植体与骨组织整合良好,牙龈形态色泽均正常,牙龈乳头充盈修复体邻间隙,牙龈龈缘维持在稳定的水平。半年后复查软硬、组织稳定。

结论:上颌前牙即刻种植即刻修复采用软硬组织增量的 方法可以达到良好的修复效果。

PRF在根尖囊中术后种植中的临床应用病例

Li, Long*

背景临床中牙源性的囊肿造成的骨缺损并不罕见,在种 植临床修复中具有极大挑战,本研究目的探讨PRF在牙 源性根尖囊肿术后种植术中临床效果。

材料和方法男性患者,33岁,左下后牙残根数年余,临床 检查36根尖区见14mm*12.98mm根尖周囊肿。拔除36 残根,搔刮囊腔,静脉采血40ml制备PRF,混合BioOss[®] 骨粉后填塞囊腔,拔牙创口PRF膜覆盖。术后6月行一 期种植手术,植入5.0*9mm Astra Tech 植体一颗,置放 6.5*4愈合基台。术后5月CBCT示种植体骨愈合良好, 取种植体水平印模,2周后永久修复。 结果种植体植入后5月,CBCT显示种植体与牙槽骨结合 良好,植体稳定性良好,颈部未见明显骨吸收,牙龈质地 正常,患者对种植义齿修复效果满意。

结论联合PRF技术应用于根尖囊肿造成的骨缺损,有助于促进根尖区骨组织再生和稳定,从而达到提高种植体稳定性和临床修复效果。

大范围块状骨移植后种植一例

Li, Ming*; Lu, Mengmeng; Tang, Chunbo; Zhang, Jinfen

目的:通过对缺牙区大范围骨量不足的患者实施自体块 状骨移植,10个月后植入Astra种植体,术后即刻修复及 永久修复的临床效果报道,以讨论邻近供区Onlay植骨的 应用价值。

材料及方法:患者通过邻近区域自体骨移植术取骨(下颌骨颏部及外斜线区),制备自体骨块,去皮质化后钛钉固位,同期GBR;10个月取出固位钉,植入Astra种植体4枚,即刻修复;6个月后永久修复。经临床检查和影像学摄片评价该病例的临床修复效果。

结果:随访9个月,患者对种植修复体的美学及功能情况 满意,无修复体脱落、崩瓷等修复并发症;X线片示植入 的4枚植体周围骨量稳定。

结论: 自体块移骨移植技术为缺牙区三维骨量严重不足时以修复为导向的种植修复提供可能。以此病例为契机探讨自体骨移植的取骨位置、移植骨吸收情况和种植体植入时机等。
牙周病即刻种植、即刻修复伴内提升一例

Li, Ming*; Lu, Mengmeng; Tang, Chunbo; Zhang, Jinfen

目的:报道一例牙周病患者即刻种植、即刻修复的种植修复治疗,以探寻针对牙周病患者可预期性好、治疗效果长期稳定的种植治疗方案。

材料及方法: 牙周病患者序列拔牙后,行种植体植入伴双侧上颌窦内提升(上颌植入8颗、下颌植入7颗Ankylos种植体),即刻修复,临时义齿戴入9个月后行改良式钛支架全瓷冠永久修复。经口内及影像学检查评价该病例的临床修复效果。

结果:整个随访期内患者对种植修复体的美学及功能情况满意,无修复体脱落、崩瓷等修复并发症;X线片示种植体周围骨量稳定。

结论:牙周病患者序列拔牙后种植外科配合设计优化的 修复方案可获得良好、稳定的临床修复效果。

右上前牙延期种植联合软硬组织增量一例

Li, Shaobing*; Huang, Yanhong; Zhang, Xueyang

主诉: 右上前牙缺失数月要求修复

现病史: 患者数月前右上前牙因"桩冠修复失败"于外院拔除, 现觉影响咀嚼及美观, 遂来我院要求进一步诊治。

检查:#11缺失,牙槽骨部分萎缩吸收,宽度降低,高度尚可。缺隙近远中距离>7mm。薄龈生物型。附着龈宽度约5mm,唇系带附着可。#11与对He牙覆He覆盖正常。X-ray:#11牙槽骨部分萎缩吸收,嵴顶宽度约4.04mm,根方倒凹较大。

诊断:#11缺失

治疗计划:患者知情同意并选择#11种植修复

处理:常规消毒铺巾阿替卡因局麻下以嵴顶偏腭侧水平切口、近中沟内切口、远中沟内切口切开,翻瓣,清除残留肉芽组织等,探测嵴顶宽度约4.5mm,唇侧骨倒凹明显。于#11缺隙近远中中点及牙弓唇侧外形连线内侧2mm以内定位,以平行杆检测位点和轴向。逐级预备,

深度控制在未来修复体颊侧预期龈缘中点下3-4mm。 锥形成型钻成形窝洞并收集自体骨屑。检查窝洞,唇侧 倒凹见骨开窗。植入Ankylos C/X 3.5mm*9.5mm一枚, 植入扭矩接近35Ncm。再次检查植入的位点、轴向和深 度。唇侧倒凹区植入自体骨+Bio-oss细颗粒骨粉0.25g, 覆盖海奥生物膜15mm*20mm一张,对位拉拢无张力缝 合。术后X-ray检测示:种植体利用根方骨质固位,种植 体唇侧面及倒凹区有>2mm颗粒状显影物充填。5个月 后以带蒂U形反折瓣来完成二期手术,同时增加了种植 位点唇侧的丰满度。最后完成烤瓷修复。以Furhauser及 Belser红白美学评分体系测量得到21分。最终修复体就 位后6个月随访修复效果良好。

小结:

- 1. 正确的植入三维位置是美学区种植修复的重要影响 因素
- 2. 唇侧GBR增量有利于唇部骨质生成
- 带蒂U形反折瓣有利于原位增量唇侧软组织量并改善 薄龈生物型

Astra Tech植体在美学区即刻种植应用

Liu, Jingpan*; Song, Yan; Wang, Xuezhen

背景:前牙美学区的即刻种植与即刻修复一直是口腔种 植领域的热点和难点,本病例采用Astra Tech植体对上 前牙受伤折断后一小时即刻进行植入和天然牙冠再利用 的即刻修复,有效的保存了唇侧骨板并利用脱落牙冠进 行临时修复,最终达到了预期效果。

材料和方法:在患者外伤后两小时进行了3.5 x 13mm的 Astra Tech植体植入,采用微创理念进行手术,术中尽 量保护唇侧牙槽骨并植入小颗粒低替代率的小牛骨粉 颗粒,并制作个性化的愈合基台,并以脱天然牙冠作为 临时修复体。

结果:在术后12周进行种植体修复工作,制取个性化硅橡胶基台模型,送技工中心制作个性化纯钛基台及氧化锆 全瓷牙冠,粘结后留存照片。 讨论:Astra Tech植体由于具有0sseospeed表面处理技术以及首创的microthread设计,在即刻种植时能够更均匀的分散初期咬合应,其独有的conical seal design的锥形封闭链接方式和connectivecontour的软组织塑形设计,可以更好的对种植体关键位点软组织进行有效管理,最终促成良好的软组织外形的形成与保持,达到了预期效果。

左上侧切牙外伤后早期种植修复一例----美学区过窄间隙的挑战

Liu, Quan*; Chen, Zhuofan

背景: 患者年轻女性,外伤致上前牙折断1月。体查:11 、21冠折,暂冠修复,叩(+),松(-);22失,间隙约 6mm,根方倒凹;龈红,BOP(+),PD<4mm,咬 合正常。Xray:22牙槽峭顶距鼻底约15mm;11和21冠折 近髓,根尖区无暗影。全口牙根周无骨吸收影。诊断:牙 列缺损;1121冠折,慢性牙髓炎;慢性牙龈炎。

材料和方法: 1、全口洁治; 2、11和21完善根管治疗, 暂 冠修复; 3、局麻下22植入ASTRA 3.0*11mm植体一枚, 唇侧以Bio-Oss+Bio-Gide行GBR术, 缝合。术后4月行 二期手术。2周后以树脂暂冠行种植体周牙龈塑形。2周 后印模, 全瓷冠修复11、21和22。 结果: 患者对修复效果满意。 讨论与/或结论: ASTRA3.0植体可以很好地解决前牙区间隙过窄的美学问题,取得较好的临床效果。

Ankylos种植体在GBR病例的安全稳定性

Liu, Zhiyong*

背景: GBR在特殊病例的应用, Ankylos植体的临床可靠性。

材料方法:患者男性49岁,2014年11缺失植入 Ankylos3.5*11植体,2016年四月就感觉右鼻底不舒服, 胀痛,但可以耐受,植体的功能不影响,五月初来复诊, 牙片发现植体根尖区有一1.5*1.5cm大小的阴影区,沟通 后应用Bi-Oss骨粉和海奥膜行GBR,术后定期复查,现 牙片提示植体良好,有新骨生成,患者无不适。 **结果:**通过这20个月的观察患者无不适,植体的根尖区有新骨生成,软组织正常。

讨论: Ankylos植体在5mm骨量包裹下,也是安全的,特殊的骨缺损在选择正确的手术方式和良好的材料,可以获得良好的临床效果。

上颌总义齿即刻修复

Lu, Wenzhong*

患者:男,年龄: 66岁。2017年6月,因上颌总义齿修复后感 觉不适,要求治疗。

病史:患者上颌原为使用多年的活动义齿修复,随着相关基牙的松动脱落,导致上颌局部义齿不能继续戴用,故在当地医院,做了上颌总义齿修复,佩戴上颌总义齿2-3个月来,不能适应总义齿的存在,特别是腭盖基托容易导致干呕,及说话口齿不清,并且长期不能纠正。

检查:上颌为总义齿修复体,下颌为活动义齿修复体,上 下颌牙齿修复的咬合关系良好,颌位稳定。上颌义齿固 位尚好,腭部基托后部长度适中,15#13#21#23#有残根 未拔除,残根周围表面牙龈有轻度红肿,其余部位牙槽 嵴、牙龈愈合良好,无红肿。

辅助检查:经CT检查,残根牙的根尖未见有明显炎症表现,两侧上颌窦底牙槽嵴高度最低处不足3mm,其余缺 牙部位骨质密度良好。

治疗计划:经过与患者沟通,决定采用种植修复上颌总 义齿的方式进行治疗。

治疗过程:

- 1、根据CT,并结合上颌原有总义齿的情况制作种植导板。
- 2、由医生考虑决定采用Astra 多牙基台系统总义齿修 复。
- 3、于2017年7月10日,进行种植手术,手术中先拔除所 有残留的牙根,运用种植导板,引导定位植入植体。 在14#位点植入OsseoSpeed TX 4.0S 13mm植体,在 11#22#位点分别植入OsseoSpeed TX 4.0S 11mm植 体,在25#位点植入OsseoSpeed TX 5.0 11mm植体。 均为20Ncm扭矩锁定。
- 4、根据口内情况,选择不同穿龈高度的 20°UniAbutment基台固定于植体。
- 5、运用原有总义齿,在植体相应部位制备穿孔,使临时 钛套筒穿过制备的空洞,使总义齿顺利就位对准上 下牙咬合。然后用自凝塑料填充入空洞,待塑料固化 后,旋松钛套筒固位螺丝,取下总义齿,调磨修改总 义齿,磨除腭部基托,试戴合适后,抛光,调合,然后 对准植体位置,带入义齿,用固位螺丝15Ncm旋紧固 位,钛套筒内放置干棉球保护螺丝孔,表面有临时光 固化树脂充填封闭。

Influence of CAD/CAM zirconia abutment on implant-abutment interface

Misumi, Ikko*; Naito, Yoshihito; Sumi, Takashi; Takeshita, Kenji; Takahashi, Tetsu

Background: Zirconia abutments are often used in Esthetic Implant Dentistry. However, post-placement fractures of these abutments are quite common, especially when the implant contains an internal slip joint. Factors, such as suitability and strength, might contribute to this fracture.

Materials and Methods: CAD/CAM zirconia abutments and provisional crowns were installed with a torque of 15Ncm in 3 patients (6 sites). The abutments were removed after 1 week, and the surface that was attached to the implant was studied by SEM and XRD. The same analysis was performed to a CAD/CAM abutment that was not placed in the patient's mouth as a control. A CAD/CAM titanium abutment was also placed with a torque of 15Ncm in the same patient and removed after 1 week.

Results: Black particles were observable on the surface of the CAD/CAM zirconia abutment placed in the patient for 1 week. SEM observation showed wear in the abutment surface. XRD analysis showed

oxidized titanium on the abutment surface. The time required for removal from the mouth was longer for zirconia than for titanium abutments.

Discussion and/ or Conclusions: Our study showed wear in the surface of the CAD/CAM zirconia abutment that was attached to the titanium implant. Analysis of the surface suggested the presence of titanium particles. Given that zirconia is stronger than titanium, the interface between the zirconia abutment and the titanium implant body is presumably worn by fastening the abutment, resulting in an irregular stress on the conical seal portion. In this study, despite the fact that the abutment was placed for only one week, surface abrasion was observed and we revealed the presence of titanium particles. By this, a longer use of zirconia abutments may thus cause further abrasion and minor cracks, leading to fracture. Further investigation of physical properties. differences between materials and abutment accuracy.

Longitudinal study of dental implant in HIV positive patients

Neumeier, Toni*; Geurs, Nico; Reddy, Michael; Hill, Jeff

Background: HIV/AIDs became a crisis in the 1990s. The World Health Organization estimated 18.2 million people were receiving HIV treatment in 2016. With antiretroviral (ARV) drugs, fewer patients have advanced into AIDs. This study compares 2 to 3 years outcomes of 20 HIV positive patients vs. 20 HIV negative patients with implant supported restorations by evaluating the periodontal health and prosthesis condition. The outcomes measures include a patient satisfaction survey, implant mobility, bone loss measurements, gingival and plaque indexes, and the measures of aesthetics.

Material and Methods: 20 HIV positive and 21 HIV negative patient's medical/dental histories reviewed for excluding smoker, diabetes, hypertension, osteoporosis, and cancers. Diagnostic impressions collected and radiographic guide fabricated. Implant size and position was planned utilizing CBCT software. Astra implants placed by Periodontists. Final impressions with PVS obtained after 6 months healing. ISQ values assessed at implant placement and prosthesis delivery. Atlantis custom abutments torqued with 25N. Porcelain metal crowns (PFM) cemented. Patients placed on 6 months recall to evaluate implant stability, plaque, gingival and JEMT index. Periapical radiographs and photos taken.

Results: Over 2-3 years follow up on 41 patients of varying age and gender. Patient CD4 194 to 1273. 60 Astra implants placed; one implant failed. ISQ were above 65. Implant crown esthetic index are "0" to "1" = excellent to satisfactory esthetic. Gingival and plaque index are "0" to "1" with either no or minimum plaque accumulation and bleeding on probing. 2 patient's crown re-cemented. 2 patient's crown replaced due to porcelain fracture. No significant bone loss around the implant on the x-ray. Patients surveyed with satisfied outcome.

Discussion and/ or Conclusions: Study indicates that satisfactory results are achievable with proper treatment plan, precise implant placement and welldesigned prosthetic restoration. Larger HIV population study is indicated to provide additional evidence for treating this group.

单颗氟斑前牙美学修复--病例报告

Niu, Wei*

背景:患者13先天缺失,正畸调整缺牙间隙后拟种植义 齿修复,CT片示13缺牙区可用骨宽度约6mm,唇侧骨质 凹陷,可用骨长度约17mm。

材料和方法: 消毒铺巾, 碧兰麻1.7ml局麻下13术区嵴顶 切开翻瓣, 逐级制备种植窝, 行骨挤压, 植入Ankylos种 植体3.5*11mm一枚, 上覆盖螺丝, 唇侧皮骨质凹陷处制 备滋养孔, 植入Bio-oss骨粉, 盖Bio-gide膜, 无张力关 闭创口并缝合。6个月后行二期手术, 牙龈袖口愈合良好 后种植体水平转移印模, 制做最终修复体。 结果:13终修复体为氧化锆全瓷冠,表面染色处理,与邻 牙协调美观。

讨论:前牙种植修复更加注意美学,Ankylos植体能获得 最佳美学效果,值得推荐。

下前牙即刻种植即刻修复2年病例回顾

Sheng, Xun*; Xiao, Xuhui; Leng,Dan

背景:为探讨即刻种植即刻修复在下前牙区的长期疗效,报道一例牙周炎即刻种植即刻修复病例的两年随访结果。

材料和方法:患者女性,39岁,41牙周炎,微创拔除患牙 后即刻植入Ankylos Ø3.5×11mm植体一枚,初期稳定 性35N.CM,上A/3/6.0/15区基台,缺骨区行GBR术,光敏 树脂临时冠即刻修复,术后每半月至一月行颈部塑形, 直至牙龈形态达到理想状态。半年后永久全瓷冠修复。 结果:当天牙龈乳头无明显萎缩,术后1周创口愈合,牙 龈形态无明显改变,红白美学效应良好。术后2年修复体 龈缘水平稳定。

结论:前牙美学区,在获得良好初期稳定性的前提下行 即刻种植即刻修复能达到良好的骨结合和美学效果,术 后暂时修复体诱导塑形牙龈满意,缩短治疗周期,提高 患者满意度。

数字化导板及短种植体在后牙区骨量不足的下颌无牙颌中的应用

Sun, Haipeng*; Lin, Jie; Huang, Shengxing

目的:数字化种植导板辅助下应用短种植体完成后牙区 骨量不足的下颌无牙颌病例,最终实现微创种植手术及 即刻负重。

材料与方法:患者上颌牙列缺损,下颌无牙颌后牙区骨量 不足。完成系统牙周治疗后上颌行活动义齿修复;下颌应 用数字化设计及种植导板,共垂直平行植入8颗 Astra种植体,其中双侧后牙区植入3颗长度为6mm的短 种植体,术后上颌活动义齿戴牙,下颌种植固定即刻修 复,4个月后下颌完成种植固定永久修复,修复形式为 纯钛支架种植巴,上部牙冠为独立的钴铬合金烤瓷冠。 **结果:**患者种植术后无明显水肿及疼痛,术后完成了下颌即刻固定临时修复及负重,术后4个月完成了下半口无牙颌长牙列的种植固定修复。患者对临时修复及永久修复的功能及美学满意。无一颗种植体失败。

结论:短种植体及数字化导板的应用,避免了植骨及倾斜种植体的使用,可以有效的完成下半口无牙颌长牙列的种植固定修复。

Restoring missing maxillary incisors using Ankylos implant system after combined surgical and orthodontic treatment: A clinical case report

Sun, Wei*

Background: The maxillary incisor is the most common absent tooth. Dental implants are an appropriate treatment option for replacing missing maxillary incisor teeth when their dental and skeletal development is complete. This case report presents the treatment of a patient with missing maxillary incisor using dental implant with Custom abutment.

Material and Methods: 30-year-old male patient presented to Department of oral implantation with missing maxillary incisor. Combined surgical and orthodontic treatment phase was completed Patient was referred to oral implant department to place 1 implant at site #8. At the day of surgery, intrasulcular incisions were made and full thickness flaps were reflected. Implant were placed in the correct threedimensional position using surgical stent. #8 received Ankylos 3.5 X11. Cover screw placed. Artificial bone powder and periosteum implanted into buccal bone defects. Tension free primary wound closure was achieved with resorbable sutures. During the healing period, the patient wore retainer with an acrylic provisional tooth. After 6 months, at the second stage surgery, cover screws were removed, provisional

crowns for #8 were fabricated using the temporary abutment. At 3 months, patient received the final all ceramic crown and final abutment. Occlusion and contacts checked.

Results: Post-operative healing was uneventful. The surgical sites after implant placement and uncover showed minimal swelling, no inflammation, no suppuration, no bleeding and no signs of complications such as a peri-implant infection or mucosal recession, and an overall pleasing esthetic treatment outcome. Patient was very pleased with esthetic and function with high pink and white esthetic scores.

Discussion and/ or Conclusions: The dental implant treatment of a patient with missing maxillary incisor was performed using narrow diameter implant. It was concluded that treatment using provisional crown and all ceramic crown were satisfactory for the patient's esthetic expectations. Interdental papilla levels were increased gradually and improved natural appearance.

The new solution using Atlantis with Omnicam

Sumi, Takashi*

Background: CAD/CAM fabricated restoration had become a new option for dental implants as an alternative to the conventional cast restorations. The spread of Atlantis abutment gives dentists, dental technicians, and patients the benefits of precise treatment. Currently, no one has any doubt about the digital intervention in laboratory operations. However, impression manipulation required analog operation, there was a contradiction that digital data is made on analogue. There, in recent years it became possible to solve optical impressions by spreading intra oral scanners. This time, I will introduce a new solution using Omnicam + Atlantis in the impression of the penetrating mucosa and determination of the margin line, which is a weak point of intra oral scanner. **Material and Methods:** Patient-specific provisional restoration and Atlantis Solution and CEREC system.

Results: It is easy to determine emergence profile without relying on operator's imagination.

Discussion and/or Conclusion: Emergence Profile has a great meaning in implant dentistry. It also contributes significantly to prognosis. Intra Oral Scanner is not good at acquiring deep data because of its nature, but by using this solution, the creation of a smooth transition line from implant to crown has come to pass. It builds the ideal emergence profile on the 3D editor, not from the scanned image.

上前牙自体骨环骨增量种植修复

Wan, Zheng*

背景:41岁男性患者,左上前牙8年前因折断后桩冠修复,松动3年加重1年。患者不吸烟,身体状况良好。口腔检查21全瓷全冠修复体,II度松动,腭侧牙颈部牙根折裂,牙龈退缩,CBCT检查21根尖暗影,根折影,腭侧骨吸收至根尖部,垂直骨高度缺损约4.5mm。

材料:种植机,Ankykos种植体及专用种植工具,环骨钻,Bio-oss骨粉,Bio-Guide骨膜。

方法:21拔除,即刻种植,同期在右下外斜线部位取自体骨环结合Bio-Oss骨粉及Bio-Gide骨膜骨增量种植手术。4个月后种植体支持式临时冠牙龈塑形。5~6个月后全瓷冠修复。

结果:采用自体骨环的GBR技术应用于垂直骨高度不足的种植病例能较好的维持牙槽骨高度,避免牙龈萎缩,有较好的美学效果。

期重建下颌骨的移植腓骨上应用Astra系统同期种植及延期修复

Wang, Lin*; Zheng, Guangsen; Zhang, Sien

背景:种植修复是颌骨缺损功能性重建的重要环节,数 字化技术可辅助实现种植修复为导向的颌骨缺损重建, 本研究应用数字化技术在一期重建下颌骨的移植腓骨 上行Astra系统同期种植及延期修复。

材料和方法:应用数字化技术制作颌骨切除及腓骨移植的外科导板及种植导板,指引Astra直型植体植入并获得双皮质固位,3到6个月后行二期修复,制作螺丝固位的种植义齿,修复相关牙列缺损。

结果:种植体可按导板准确就位并形成骨结合,螺丝固 位种植义齿完全被动就位,软组织袖口封闭良好。

结论: Astra直型植体在移植腓骨中易于获得双皮质固位,利于颈部骨皮质应力分散,在数字化技术辅助实现种植修复为导向的颌骨缺损重建中有明显优势。

Immediate implant placement for the treatment of maxillary incisor with root canal treatment failure

Wang, Min*

Background: Recurrent pains after root canal treatment is a challenge for endodontist. This case report presents the treatment of a patient with root canal treatment failure in maxillary incisor using immediate implant placement.

Material and Methods: 25-year-old male patient. whose left maxillary incisor was received root canal treatment after trauma, presented to Department of Oral Implantology because of recurrent pain. The patient agreed to receive immediate implantation. At the day of surgery, tooth 21 was extracted using minimal invasive instrument. An implant was placed in the correct three-dimensional position using Ankylos 3.5*11.5mm. Cover screw was placed and the gap between implant and the alveolar bone was filled with Bio-oss. The wound was closed using gelatin sponge. During the healing period, the patient wore an acrylic provisional tooth. After 6 months, a labial fistula was found and there was no secretion. The X-ray showed no bone resorption around the implant. The full thick flaps were reflected; the extra Bio-oss and granulation were removed. The labial bone surfaces were trimmed using laser. The healing abutment was connected and new Bio-oss was placed. 4 months later, the patient received the final all-ceramic restoration. Occlusion and contacts were checked.

Results: A fistula was found before the second stage surgery without inflammation. The non-inflammatory lesion may be caused by the foreign body reaction of Bio-oss. After 1 year follow-up, the restoration showed no infection or mucosal recession, and an overall pleasing esthetic outcome. Patient was satisfied with esthetic and function.

Conclusion: Immediate implant placement is a treatment option for the treatment of maxillary incisor with root canal treatment failure. High pink and white esthetic can be obtained with immediate implant placement and delayed restoration.

第二磨牙缺失种植修复一例

Wang, Ning*

背景:临床常见因牙周病而致牙齿缺失,没有及时或各种原因未做拔牙位点保存,观察一例这样的患者,从拔 牙后到种植修复前后4年的牙槽骨变化情况。

材料及方法:68岁男性患者,2014年3月因牙周病拔出 47,14年8月要求种植修复,CBCT分析后,未能延期种 植,建议患者做CBCT骨增量术,患者未接受。2017年2月 患者再次就诊要求种植修复,CBCT检查后,拔牙区骨质 比14年改善很多,但骨密度还低于正常。局麻下切开翻 瓣,缺牙区骨质疏松,骨挤压术同期植入Ankylos B8种 植体。术后4个月行二期手术,安装牙龈成型器。术后5个 月种植体水平取模。术后6个月全瓷冠修复。 结果: 6个月后复诊, 术区软组织色形质正常, 牙龈乳头 良好, 种植体骨结合良好, 种植体周未见阴影及病理吸 收, 反而缺牙区牙槽骨密度有所增加, 牙槽嵴顶骨质比3 年前明显丰满。

讨论: 拔牙位复未及时保存病例的种植修复病例,缺牙 区牙槽嵴会随着种植修复后逐渐改健。

病例报道:Ankylos 种植系统用于全口无牙颌患者修复

Wang, Ruixia*; Zhu, Zhijun

背景:倾斜种植技术的发展,使得以4颗种植体支持严重萎缩的无牙合成为该类患者的理想解决方案。

材料和方法: 我院口腔种植科收治下颌无牙颌患者1 例, CBCT显示下颌骨颏孔区以后骨高度不足, 在颏孔区 以前植入4颗Ankylos种植体, 其中近中2颗轴向植入, 远 中2颗倾斜植入, 并进行树脂临时修复。

结果:种植术后3个月后完成永久修复。修复完成后3个月、6个月、1年、1年半复查, x线片显示种植体周围骨结 合良好,种植体颈部无明显骨吸收。 **讨论:** 在本研究中,4颗Ankylos种植体支持的种植固定 义齿修复获得了良好的修复效果,提示该种植系统可以 用于严重萎缩的无牙合患者修复。

种植在前牙连续缺失的临床应用

Wu, Dong*; Wu, Haoyang; Liu, Jie; Zhang, Yanjing; Zhu, Qingqing; Zhou, Hong; Zhao, Peng

背景:前牙种植属于种植修复病例中的复杂病例,如果 前牙连续多颗缺失,种植治疗就更困难了。

材料和方法:患者术前拍摄CBCT,种植系统为Ankylos, 植骨材料为Bio-Oss和Bio-Gide,术中植入种植体,同期 行GBR,术后6个月行修复治疗。 **讨论:** 修复效果前期出现都不同程度的牙龈萎缩,黑三角,随着时间推移,美学效果都有改善,显示出种植体周围良好的组织恢复能力。种植修复治疗是安全可靠的前牙多颗缺失的治疗方法。

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结果:患者的美学效果都比较理想。

即刻种植与延期种植在前牙区应用的临床比较

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背景:即刻种植被广泛认为是可靠又美学效果好的治疗 方法。该方法的优点:1.治疗周期短;2.更好维持牙槽骨 形态;3.患者费用少。即刻种植被认为是保存牙槽骨的 最好方法,但有些学者认为拔牙后延期种植美学效果更 可靠。我们总结了上述两组病例,对其美学效果进行比 较。

材料和方法:组一,微创拔牙后即刻种植,在骨壁与植体间填Bio-Oss并覆盖Bio-Gide,关闭创口,6个月后修复。 组二,拔牙后6个月后,行种植,同期行GBR,6个月后修复。 结果:通过观察,两组患者的美学效果都比较理想。

讨论:两组患者都显示出良好的美学效果,说明这两种 方法都安全可靠。即刻种植在治疗周期有优势。

一例双侧上颌窦外提升术同期植入术后7年临床报告

Xiao, Xuhui*; Zhou, Jinyang; Leng, Dan

背景:上颌后牙区种植术常因牙槽嵴垂直骨高度不足受限,上颌窦提升术是解决上颌磨牙区骨量不足的有效手段。

材料和方法:杨某,女性,60岁,6年前,16、17、25 、26因牙周炎拔除,X线检查示双侧后牙区牙槽骨高 度约3.5mm,拟行上颌窦外提升术同期植入。于16 、17;25、26位点行上颌窦外提升术,16植入Ankylos Ø3.5×9.5mm植体一枚,17、25、26植入Ankylos Ø3.5*11mm体各一枚,窦腔内填入Bio-oss骨粉,盖双 层Bio-Gide胶原膜,严密缝合。1年后base基台螺丝固位 完成最终联冠修复。 结果: 随诊7年种植体骨结合良好, 种植体周牙槽骨无明显吸收, 咀嚼效果满意。

结论:上颌窦提升术是解决上颌后牙区剩余骨高度不足的有效措施,联冠修复能更好的承受咀嚼力。

标准基台在下半口即拔即种即刻修复病例中的临床应用

Xie, Qixiao*

背景:53岁男性苏某,约五年前行下颌局部活动牙修复, 牙齿逐渐脱落影响进食要求种植修复。体健,有吸烟史。 口腔卫生差,31、32、34、35、36、37、43、44、45、47 缺失,牙槽嵴高低不平,合龈距变大。CBCT示种植位点 可利用骨量最小为5.1*9mm。

材料: Ankykos植体及工具盒,环骨钻, Bio-oss骨粉 Bio-Guide膜。

方法:

- 1、系统牙周治疗。
- 2、数字化种植方案设计。
- 3、利用原活动牙进行定点,33、34、36、37、43、44 、36、37位点植入种植体,使用标准基台行6颗种植体 即刻负重。
- 4、6个月后行永久性修复。
- 5、完成下颌牙修复后再行上颌后牙种植修复。

结果:种植体达到理想的初期稳定性,采用稳定的连桥 式支持固定义齿的修复方式,多个种植体稳定连接可最 大限度地减少各种植体动度,分散合力,避免个别植体 负载过重,这种情况下即刻负重能刺激骨改建,临床上 具有广阔的应用前景。

利用自体牙进行即刻种植修复

Xie, Zhigang*; Fu, Xulan

背景: 探讨自体牙进行即刻种植修复中、短期的美学修 复效果。

材料和方法:患者左上中切牙因重度牙周炎松动,要求种 植修复。完善术前检查,采用不翻瓣微创拔牙即刻种植, 利用自体牙制作临时冠行即刻修复,最终选择前牙平衡 美学基台进行全瓷冠修复,戴牙后1年、2年随访。

结果:术后植体唇侧骨板及周围软组织保留情况好。随 访期间,植体唇侧骨板(厚度1mm)及龈缘位置稳定,龈 乳头逐渐充满邻间隙,牙龈颜色形态与邻牙协调,获得 良好美学效果。 **结论:**美学区种植修复采用不翻瓣、即刻种植修复技术 可缩短患者疗程以及减少患者就诊次数;经过自体牙诱 导,可以减缓唇侧龈缘退缩,更好地维持龈缘形态,从而 获得重塑牙龈乳头的效果,满足患者对美观的要求。

A comparison of early loading and delayed loading of Astra Tech Implant System placement in the anterior region

Wang, Yuanqin*

Background: The aim of present study was to analyze the prosthodontic outcomes of early and delayed loading following delayed single-tooth implant placement in the anterior region of maxilla.

Material and Methods: A total of 40 patients who meet the inclusion criteria was selected randomly and signed the informed consent. Then 40 Astra tech OsseoSpeed implants was inserted into the anterior region. 20 of the implants (test group) received restoration procedure 6 weeks after surgery while the other 20 (control group) received the restoration procedure 12 weeks after surgery. Evaluation of the implant stability quotient, the marginal bone level and the pink esthetic score was taken 12 months after permanent restoration of both the early loading group and the delayed loading group. All parameters between two groups was statistically analyzed thereafter.

Results: One-year implant success rate of both groups was 100%. Implant stability at baseline was 68.7±5.6 for the test group and 77.6±3.6 for the control group, and was steadily increased to 78.7±3.1

for the test group and 80.2 ± 2.6 for the control group one year later. Continuous and significant bone loss was observed, reaching 0.82 ± 0.40 mm for the test group and 1.06 ± 0.30 mm for the control group in the first postoperative year. The PES of the study group was 8.50 ± 1.20 while the control group was 8.23 ± 0.97 which the differences had no statistical significance (P>0.05).

Discussion and/ or Conclusions: The prosthodontic outcomes of early and delayed loading of Astra Tech OsseoSpeed implants placed in the anterior region of maxilla was well acceptable. There was no statistical differences between two groups in the implant stability, the marginal bone loss and the pink esthetic score.

Ankylos种植系统在全口种植即刻修复中的应用

Zhang, Lei*; Hou, Yongfu; Yu, Zuo

背景:全口种植即刻修复是当下种植领域热点,因可避免患者失牙期而深受医生和患者的青睐。现将我科使用Ankylos种植体并采用平衡基牙基台即刻修复上下全口一例患者报道如下。

材料与方法:根据CBCT所示颌骨质量,选备合适型号植体及基台。常规术前准备,上颌植入6颗、下颌4颗植体,扭矩达25N/cm,安装平衡基牙基台,开窗取模,制作义齿。

结果:上下颌顺利完成全口即刻固定临时义齿修复,8个 月后均顺利完成最终修复,获得良好临床效果,患者主 观满意度高。

讨论:Ankylos种植系统能够完美实现无牙颌全口种植固定即刻修复。上颌骨密度较低,6颗种植体为即刻修复提供了较大的支持力和必要的容错性。恰当的咬合设计,能够降低特定种植体的受力,降低种植体失败的概率。

Restoration of traumatic tooth in the maxillary anterior region using immediate placement of dental implant combined with guided bone regeneration

Zhang, Lili; Zhang, Yufeng*

Background: The restoration after tooth trauma in esthetic area has always been a hot issue. Alveolar Bone atrophy following tooth extraction in maxillary anterior region may result in esthetic complications. Thus, immediate placement of dental implants has been suggested, because it may prevent bone loss effectively, reduce the times of subsequent visits and generate relative higher patient satisfaction. However, there are generally a gap between the implant and the buccal plate when implant immediately. Bone augmentation are usually adopted for higher survive rate and better esthetic outcomes. Recombinant human bone morphogenetic protein 2 (rhBMP-2), with great osteoinductive capacity, has been used in combination with bone grafts for different bone augmentation purposes.

Materials and Methods: A 32-year-old systemically healthy man presented at our hospital. He has suffered from trauma for 6 weeks. The clinical and radiographic examination indicated that the teeth 11, 21 were fractured and has an unfavorable prognosis. Following the local anesthetic, the teeth were atraumatic extracted followed by immediate implantation of two Ankylos implants (3.5*14 mm). The rhBMP-2 tablets (Hangzhou Jiuyuan Gene Engineering, Hangzhou, China) were placed at the buccal bone surface, and then the buccal surface and the gap were grafted with deproteinized bovine bone mineral (Geistlich AG, Wolhusen, Switzerland) and absorbable collagen sponge, following with a resorbable collagen barrier membrane covered upon (Bio-Gide, Geistlich AG), then sew without strain. The provisional restoration was adopted to induce the harmony soft morphology after secondary surgery. After 4 months, the provisional restoration was replaced by a ceramic restoration.

Results: The soft and hard tissue were in harmony with prosthesis by immediate implant placement with bone augmentation.

Discussion and/ or Conclusions: This case has illustrated a promising therapeutic plan consisting of atraumatic extraction followed by immediate implantation with bone augmentation, and provisional restoration for harmony esthetical results.

前牙区即刻种植修复对于软硬组织美学效果的重要性

Zhang, Qun*

背景:前牙区即刻拔除即刻种植即刻修复对于维护前牙 软硬组织美学稳定性起到重要的作用。

材料和方法:对于前牙区唇侧骨板存在或V型缺失的无 炎症性病例,种植前制作临时修复体,通过即刻拔除即 刻种植即刻修复来保持前牙的美学效果。前牙通过无创 或微创拔除,搔刮拔牙窝,植入种植体,种植体位点位于 拔牙窝偏腭侧骨壁,起到很好的初期固位力,种植体与 唇侧骨壁之间植入不可吸收骨替代材料,以明胶海绵或 生物膜封闭拔牙创,通过种植体携带体作为临时基台做 临时性修复,修复体无咬合。

结果:此修复方式操作简单,无切口,出血少,患者术后反应轻。能够很好的维持前牙区软硬组织的原有形态。

数字化导板辅助后牙微创种植一例

Zhang, Rui*

背景:数字化种植导板技术为微创种植手术的开展提供 了更安全的方式和更为精确的指导。

材料和方法:沈某,女,35岁。16缺失数月,要求修复。行 常规临床检查和X线检查,建议行数字化导板引导下的微 创种植修复。按照"术前CBCT扫描和模型扫描→术前手 术模拟和修复体模拟→手术导板制作→导板半程引导手 术→术后修复(术后3个月)→术后复查"的流程进行治 疗。术中选用Astra OsseoSpeed TX 5.0植体。 结果: 植体的初期稳定性为25N.cm, 植体很好的植入了预期位置。缺失牙的外形和功能得到了良好恢复。在负重后的复查中, 牙槽骨的高度保持稳定。

结论: Astra种植体维持了良好的边缘骨水平。结合数字 化导板引导的微创种植,为患者提供更为精准和更具预 期的良好的种植牙体验。

上颌美学区牙外伤行即拔即种植入种植体病例报告

Zhang, Xiaoxin*; Zhou, Bowei

背景:美学区牙外伤后行即拔即种种植修复一直以来被 视为难度系数较大的临床操作,拔牙后常存在硬组织垂 直或者水平向的缺损,导致种植外科及修复过程中存在 较大美学风险。本文将介绍美学区牙外伤后行即拔即种 种植修复的过程,探讨种植修复治疗过程中使用的相关 种植外科技术及修复技术,总结能够在美学区行即拔即 种病例中获得良好美学效果的临床经验。

材料方法: 病例简介: 选取武汉大学口腔医院种植科 2017年收入的患者卢x, 女性, 21岁。

主诉:上前牙外伤3月,影响美观及咀嚼功能,要求种植修复。

现病史:上前牙外伤3月,1月前行根管治疗后效果不佳, 现要求种植修复。

既往史: 否认系统病史

术前临床检查:硬组织情况:21变色,牙冠伸长1-2mm, 松l°。11、22牙体无明显异常和倾斜,叩(-)松(-),余牙 无明显异常。

牙周及软组织状况:牙龈未见明显红肿,颊舌侧黏膜无明显异常,唇系带附着位置正常,角化龈尚可。全口卫生情况一般,软垢(+),牙结石(+)。影像学检查:21可用牙槽骨高度约13~14mm,唇侧骨板吸收3-4mm,根尖腭侧右暗影,骨质正常。

诊断:上前牙根折

治疗计划:拔除21,即刻种植植入修复体,延期修复

治疗步骤:

(1)术前准备:详细询问患者有无全身系统性疾病和过敏 史。全面检查病人身体情况,如血常规、血压、肝功能 等。重点检查咬合关系、软组织形态、牙间隙大小等。了 解植牙区黏膜厚度,牙外伤情况。检查余留牙,对余留牙 进行完善治疗并作洁治。拍摄CBCT三维观察颌骨高度、 宽度及骨密度。 (2)一期手术:21局麻下全口消毒,拔除21,行牙槽嵴顶 横行切口,翻瓣,牙槽骨宽度约5mm,将事先准备好的 数字化种植导板戴入患者口内,用小球钻为种植体植入 位置定位,先锋钻定深,放置标示杆确定种植体的方向, 方向无误后,用扩孔钻逐级预备种植窝洞,骨挤压,攻 丝钻成形窝洞螺纹,将Ankylos种植体3.5*11mm,上愈 合基台,充填Bio-Oss骨粉,Bio-Gide生物膜,严密缝合 切口。

(3)制取个性化印模及最终修复体戴入:一期手术6个月 后,拆除愈合基台查看牙龈状态。(为患者制取个性化印 模,聚醚制取印模,比色,设计金基台,粘接固位全瓷 冠。

(4)医嘱及周期性复诊:告知患者口腔清洁方法及义齿的 使用和维护,提醒患者戴牙后1个月、3个月、6个月及以 后每年复诊。复诊检查内容包括种植体松动度,修复体 的稳固情况及完整性,咬合情况,牙周状况,骨边缘吸收 情况等。

结果:治疗过程及修复效果:

结论:GBR技术在前牙区骨量不足情况的骨增量由于前牙 区唇侧骨板通常较为菲薄,在前牙区行即拔即种术时, 术中将牙齿拔除后常出现唇侧骨壁缺损或骨量不足的情 况。唇侧骨量不足将直接影响前牙区种植体的稳定性并 引起之后美学修复的一系列问题。引导骨再生技术的成 熟与临床应用解决了骨量不足对牙种植的限制。本病例 中种植同期GBR技术骨增量,在牙龈软组织与骨缺损之 间覆盖Bio-Gide生物屏障,一方面可以防止充填材料溢 出,使其在骨缺损处形成占位,利用新骨完全充填;另一 方面也可以阻止软组织中成纤维细胞的干扰下完成骨修 复,Bio-Oss骨移植材料吸收缓慢,维持新骨生长空间, 使血液中的具有成骨能力的细胞生长修复骨缺损。能够 有效解决骨量不足的问题,恢复牙槽骨的丰满度,提高 种植修复的远期成功率并获得理想的美学效果。

口腔种植技术在前牙美学中的应用一例

Zhao, Ruiying*

背景:临床常见因各种因素造成骨组织缺失,为满足患者的美学及功能需求,骨增量技术显得格外重要。

材料与方法:48岁男性患者,24缺失。CBCT分析后:1、 局麻下切开翻瓣,缺牙区U形骨缺损,于左上4位置植入 Ankylos ⊠4.5*9.5mm种植体,同期行GBR。2、术后6个 月行二期手术,取个性化印模,择期戴全瓷冠。 结果: 3个月后复诊, 术区软组织正常, 种植体骨结合良好, 种植体周围未见阴影及病理性吸收。

讨论: 对于缺失牙采用骨增量技术,为患者获得了良好 的美学及功能效果。

软组织增量联合骨增量技术种植修复缺失牙一例

Zhou, Hong*; Zhang, Yanjing; Liu, Xiaoqing; Wu, Dong

背景:临床常见因各种因素造成软组织和骨组织的缺失,为满足患者的美学及功能需求,软组织增量及骨增量技术显得格外重要。

材料与方法:38岁男性患者,45缺失。CBCT分析后:1、 制作A-PRF,行软组织增量术;2、术后1个月后查软组 织成形良好,局麻下切开翻瓣,缺牙区U形骨缺损,于 左下颌前牙区超声骨刀取15×8mm骨块移植,并植入 Ankylos ⊠3.5×14mm种植体;3、术后5个月行二期手 术,制作临时冠,取个性化印模,择期戴全瓷冠。 结果: 3个月后复诊, 术区软组织色、形、质正常, 种植体 骨结合良好, 种植体周围未见阴影及病理性吸收。

讨论: 对于缺失牙采用软组织增量联合骨增量技术,为 患者获得了良好的美学及功能效果。

前牙即拔即种美学修复病例一例

Zhou, Lei*

背景:临床常见前牙烤瓷冠修复多年后,根折,烤瓷冠脱 落病例。为满足患者的美学及功能需求,保存患者前牙 的骨板,不发生骨吸收,前牙即拔即种美学修复技术,显 得格外重要。

材料与方法:60岁男性,上前牙2-2行烤瓷联冠修复多年,今烤瓷联冠根折,脱落,CBCT分析后,2-2牙根无保留价值。局麻下2-2拔除,2-2植入Ankylos3.5*11mm种植体,植入Bio-Oss骨粉0.25g,盖骨膜,严密缝合,术后6个月行二期手术,取印模,行2-2全瓷联冠美学修复。

结果: 3个月后复查, 术后良好, 软组织无退缩, 无红肿。 种植体骨结合良好, 种植体周围未见阴影及病理性吸收。

结论:即拔即种很好的保存了2-2唇侧骨壁,防止骨吸收。Ankylos种植体前牙种植美学修复达到满意的结果。

前牙美学区即刻种植一例

Zhu, Qingqing*; Liu, Xiaoqing; Wu, Haoyang

背景: 患者对上颌前牙区种植美学越来越高, 临床医生 需尽可能为病人省时省钱。

材料与方法:48岁男性患者,11残根、21。CBCT分析 模拟后,常规消毒铺巾,局麻下微创拔除11、21根折, 均植入Ankylos ⊠3.5×14mm种植体,同期行GBR手 术。术后10天复诊,伤口愈合良好,拆线,制作保持器 式临时修复体。5个月后取种植体水平印模,择期戴全 瓷冠。嘱患者注意事项,按时复诊。 结果:1年后、2年后复诊,术区软组织色、形、质正常, 影像学检查种植体骨结合良好,种植体周围未见阴影及 病理性吸收。

讨论:上颌美学区即刻种植联合 GBR 技术,既节省时间 又节省费用,为患者获得了良好的美学效果。

即刻种植联合天然牙牙龈成形在根折牙修复中的应用

Zhang, Yufeng

目的:报道即刻种植配合天然牙冠牙龈成形来修复外伤 牙病例一例。

材料与方法:患者前牙外伤,临床检查见11叩痛(+),松 II°。辅查示11牙折至牙槽嵴顶下方约1mm处,牙周膜增 宽,预后不佳,决定即刻种植修复患牙。遂于局麻下 微创拔除11,植入一颗Ankylos种植体,填塞Bio-Oss[®]骨 粉,减张严密缝合,术后即刻调磨折断的牙冠并粘接行 暂时修复,后期利用该牙冠行牙龈诱导成型,半年后 行全瓷冠永久修复。 结果:患者种植体周围骨组织量充足(2mm),牙龈形态 与邻牙协调,取得良好的软硬组织修复效果。

结论:通过即刻种植可以有效保存骨量,减少治疗时间,利用原天然牙冠进行软组织塑形,能获得更佳的软组织美学效果。

Ankylos种植体在美学区即刻种植及延期种植修复的自身对照一例

Zhou, Jieyu*; Fan, Haidong; Xu Liqiang

背景:一患者使用Ankylos种植体分别在前牙区行即刻种 植及GBR后延期种植,并分析两者的临床效果。

材料和方法:拔除21残根后行即刻种植+即刻修复术,11、12因根尖囊肿反复感染,拔除后行GBR。术后8个月植骨区愈合良好,12行延期种植+即刻修复术,软组织塑形稳定后最终修复。3、6、12个月后随诊。

结果:两枚种植体均与周围骨组织形成理想的骨整合,达到良好美学效果;植骨材料密度与正常颌骨密度趋于一致,边界基本消失,出现类似正常骨小梁网状结构。

结论:1.Ankylos种植体在即刻种植及延期种植中,均达 到良好骨整合及美学效果。2.GBR对修复颌骨囊肿导致 的骨缺损安全有效。

A clinical case of maxillary sinus elevation after 6 years

Xiao, Xuhui*

Background: Implant placement in the maxillary posterior region is often limited by insufficient vertical bone height of alveolar ridge. Maxillary sinus lifting is an effective way to solve the serious shortage of bone in maxillary molars, and lay a solid foundation for successful implant placement.

Materials and Methods: 60-year-old female patient was missing maxillary posterior tooth. The height of the alveolar ridge in posterior teeth area was severely deficient before operation, and the maxillary sinus elevation was planned for the simultaneous implantation of the implant. At the day of surgery, implants were placed in the posterior tooth using Ankylos 3.5*9.5 and 3.5*11. Cover screw placed. After 7 months, at the second stage surgery, cover screws were removed, healing abutments were placed, and the final combine crown was repaired after using transitional denture 4 months. Occlusion and contacts checked. **Results:** Post-operative healing was successful. The surgery sites after placement no inflammation, no bleeding and no signs of complications such as a peri-implant infection or no mechanical complications. After 6 months, one year, 3years, 6years follow- up, X-ray showed that there was no obvious absorption in the peri-implant alveolar bone, and there was no bleeding in the peri-implant mucosa. Patient was very satisfied with the function.

Discussion and/ or Conclusions: Maxillary sinus lifting is an effective measure to solve the serious shortage of residual bone height in the maxillary posterior area. The use of coronal restoration can better withstand the masticatory force. After 6 years of follow-up observation, the patient was satisfied with the function of the denture.
Ankylos种植体在前牙即刻种植美学修复中的应用

Xu, Yanbiao*

背景:

主诉:右上1牙龈发黑5年。

现病史: 十余年前11因龋行"根管治疗、桩冠修复"5年前龈缘发黑。

检查:露龈笑,薄龈型,11烤瓷冠,牙龈发黑,瘘管,无脓性分泌物。

根尖片示:根尖周阴影

诊断: 11慢性根尖周炎

材料和方法:

术前检查,术中拔除11,植入AnkylosØ3.5x 14mm,GBR。6个月后二期手术,临时冠牙龈塑型后行 个性化取模,个性化全瓷基台+全瓷冠完成修复,戴牙后 6个月、1年复查。

结果:

良好的红白美学效果结论:

使用Ankylos植体,利用其微粗糙种植体肩台允许骨下植入,莫氏锥度连接,平台转移提供软组织整合空间等特性,获得稳定的种植体周围骨组织和良好的软组织形态。

Ankylos修复先天侧切牙缺失伴严重骨缺损一例

Zhang, Kailiang*; Tian, Yu; Li Ruiping; Zhang Baoping

背景:登士柏Ankylos平台转移型种植系统在前牙种植 美学修复中可获得理想的效果。

材料与方法:患者18岁女性,先天侧切牙缺失伴水平型 骨缺损。局麻下牙龈切开翻瓣,牙槽嵴顶宽约3.5mm, 基底部骨质凹陷明显。牙槽嵴顶骨劈开骨撑开至 6mm,基部骨凹陷处植入植骨钉一枚,行"帐篷"技术联 合GBR修复基底部骨质缺损。术后六月,原位切开翻瓣 见成骨尚可,植入Ankylos C/X A11种植体,植体颈部部 分暴露,植入Bio-Oss骨粉,盖Bio-Gide胶原膜缝合,术 后6月行牙龈塑性全瓷冠修复。 结果:术后CBCT示种植体方向与骨结合良好,唇侧组织 丰满,牙龈形态较好,患者对修复效果非常满意。

讨论: Ankylos种植体平台转移设计及骨下种植有助于 骨组织及软组织长期稳定,获得满意的种植美学修复效 果。

All-on-Six数字化导板辅助下即刻种植即刻修复上颌牙列缺损1例

Zhang, Kailiang*; Tian, Yu; Li, Ruiping; Zhang, Baoping

背景:借助CBCT测量术区骨量、评估植入条件,运用专业软件进行术前模拟和导板设计,并通过3D打印技术制作种植导板辅助种植手术,从而在手术中实现种植体的精确植入。

材料和方法:在CBCT的辅助下对上颌牙列缺损并伴有 慢性牙周炎的患者进行了术前诊断以及数字化导板的制作。在术中我们拔除了上颌全部余留牙并 在数字化导板引导下即刻植入6颗Ankylos种植体,安装 Smartfix基台,然后用过渡义齿即刻修复缺失牙列。4个 月后行永久修复。 结果:微创的手术过程、术后即刻行使功能及较短的疗程使患者获得较高的满意度。

结论: Ankylos种植体可以获得良好的初期稳定性,满足即刻负载的需求。Smartfix基台的联用可以便捷地纠正倾斜植体的角度,便于多个植体之间获得良好的共同就位道。

正畸种植联合治疗--前牙美学区种植病例一例

Zhang, Yanjing; Zhou, Hong

背景:随着口腔种植学的发展,缺牙患者单纯种植修复 无法满足美学需求时需多学科交叉治疗才可获得良好美 学及功能效果。

材料和方法: 病例: 16岁女性, 12缺失。检查: 12牙先天 缺失, 22过小牙, Ⅲ°深覆颌。诊断: 错颌畸形; 牙列缺 损; 22过小牙。治疗过程: (1) 正畸治疗打开咬 合。(2) 种植手术: 术中骨劈开工具、骨挤压工 具、Ankylos工具结合使用备洞, 12牙位处植入Ankylos φ3.5mm*14mm种植体, 安放内置螺丝, 缝合。(3) 8个 月后二期手术。更换愈合基台, 制作临时冠牙龈塑形。 结果: 11、22瓷贴面修复, 12种植牙修复。

讨论: 正畸、种植、美学修复多学科联合序列治疗, 可获 得了良好的美学效果。

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