

SCHEDULE

INTRODUCTION

Renato Di Martino - Mectron SpA

Manlio Galiè - EACMFS Education & Training Officer

LECTURES

Advanced bone surgery: Piezosurgery in maxillo & cranio-orbito-facial area - Luigi C. Clauser, Riccardo Tieghi, Ferrara - Italy

Piezosurgery in mandibular osteotomies, reconstructive procedures, distraction osteogenesis & regeneration - Manlio Galiè, Ferrara - Italy

Morphostructural analysis of human fibula bone osteotomies with piezosurgical device in jaws reconstruction: a mirror of a new faster piezoelectrical osteotome - Alexandre Anesi, Modena - Italy

Experience with the Mectron Medical Piezosurgery unit - Mark McGurk, London - Great Britain

Hands on - Practical session - All faculty + MECTRON Staff

TARGET AUDIENCE

- Oral Surgeons & Dentists
- Orthognatic Surgeons
- Maxillo-Facial Surgeons
- Craniofacial Surgeons
- Orbital Surgeons
- Oculoplastic Surgeons
- Plastic Surgeons
- Neurosurgeons
- ENT Surgeons

PRODUCT TRAINING COURSE INFORMATION

- Free course for Congress participants only

- For further information, please contact:

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ABOUT MECTRON

Mectron has been active since 1979, developing and producing top-quality devices. The company has always stood out on the market for its continuous process of development and innovation and the excellent design of its products.

Thanks to these qualities and to a sales network covering over eighty countries, mectron has earned itself a position of great prestige on International markets.

When Mectron introduces PIEZOSURGERY® in 2001, the technology was revolutionary for bone surgery, providing precision, safety, the highest cutting quality to surgeons all around the world. The new technology became the state-of-the-art for bone surgery devices. Once appreciated the intraoperative advantages obtained from the technology, Mectron developed PIEZOSURGERY® devices, which are today the best ultrasonic bone cutting devices for medical fields.

Today more and more surgeons also discover the postoperative benefits brought by PIEZOSURGERY® devices and specifically faster and better bone healing, reduced postoperative pain, swelling and edema.

Maximum efficiency, maximum control, maximum performance: the new PIEZOSURGERY® plus is the device for everyone who wants everything – and can be used for nearly all surgeries, from reconstructive to thoracic, from maxillofacial to neurosurgery.

Day after day Mectron continues to pursue the same philosophy of technical innovation and scientific research to which it owes its history.



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EACMFS2016

Ancient and Modern - Surgery Meets Technology

23rd Congress of the European Association for Cranio Maxillo-Facial Surgery

The Queen Elizabeth II Conference Centre London UK
13-16 September 2016

MECTRON PRODUCT TRAINING COURSE PIEZOSURGERY IN FACIAL - CRANIOFACIAL OSTEOTOMIES & BONY REGENERATION

Faculty: Alexandre Anesi, Luigi C. Clauser, Manlio Galiè, Mark McGurk,
Riccardo Tieghi

Monday 12th September 2016
10.00 - 12.00

Elizabeth Windsor Room QEII Conference Centre

MECTRON PRODUCT TRAINING COURSE

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PIEZOSURGERY IN FACIAL - CRANIOFACIAL OSTEOTOMIES & BONY REGENERATION

Faculty: Alexandre Anesi, Luigi C. Clauser, Manlio Galiè, Mark McGurk, Riccardo Tieghi.

The Mectron Product Training Course will be a unique opportunity to learn about PIEZOSURGERY®. The Workshop will be structured into fundamentals and hands-on.

Fundamentals will include clinical presentations given by Experienced Surgeons from all over the Europe: Alexandre Anesi, Luigi C. Clauser, Manlio Galiè, Mark McGurk and Riccardo Tieghi.

Presentation abstracts:

Morphostructural analysis of human fibula bone osteotomies with Piezosurgical device in jaws reconstruction: a mirror of a new faster piezoelectrical osteotome - Alexandre Anesi, Modena - Italy

BACKGROUND: Segmentation of vascularized bone flaps with piezoelectrical device is a valuable alternative to conventional cutting methods because it improves the intraoperative safety of the procedure. The time needed for completion of a single osteotomy with the piezoelectric device is longer than with the oscillating saw. However, the time normally needed to dissect and protect both the periosteum and the pedicle at each osteotomic site is greatly reduced. In 2015 a new piezoelectrical device suitable for highly mineralised bone and significantly efficient through all the cutting depth was engendered. Hardness and thickness of human fibula bone cortex may be fitting for this new piezoelectrical osteotome.

AIM: We present and discuss the use of a new generation of the piezoelectric bone-cutting device in microvascular free bone flap for the reconstruction of jawbone defects. The aim of this study was to evaluate on human fibula the time required for completion of each osteotomy comparing new piezoelectrical device and previous commercial device. A comprehensive study that evaluates and compares histomorphometry and histology of bone surfaces created with two piezosurgical devices is carried out.

MATERIALS AND METHOD: In 2016 four consecutive patients underwent microsurgical reconstruction of the jaws. One specimen from each fibular bone diaphysis was harvested with the piezoelectric device and histologically evaluated.

Co-authors A. Anesi, L. Chiarini - Azienda Ospedaliero-Universitaria Policlinico, Cranio-maxillo-facial Unit, MODENA, Italy

Advanced bone surgery: Piezosurgery in maxillo & cranio-orbito-facial area - Luigi C. Clauser, Riccardo Tieghi, Ferrara - Italy

Traditionally, a variety of surgical tools like saws, drills and osteotomes have been used in cranio and orbito-maxillo-facial surgery. Cranio, orbito and maxillofacial osteotomies risk injury to the adjacent structures and soft tissue. The piezoelectric system (PS) is a relatively new surgical device that was first introduced in 2000 by the Italian Tomaso Vercellotti in oral and dental-implant preprosthetic surgery. The system uses microvibrations at a specific frequency range in the order of 20 to 30 kHz to cut mineralized tissue selectively, thus sparing surrounding soft tissue. Since its introduction, PS has been used in a variety of surgical fields, including neurosurgery, hand, otologic and facial reconstructive surgeries (craniofacial, orbital-periorbital, orthognathic, distraction osteogenesis, and bone harvesting). The potential benefits of PS are particularly helpful in cranio-orbital surgery because of minimal damage to the surrounding soft tissue, improved visualization and optimal bone healing. Longer operation time has been reported as a limit in orthognathic surgery. This is probably due to larger bone volume in mandibular osteotomies compared with the thin orbital and periorbital bones. In any case postoperative recovery is faster when using PS. Piezosurgery also requires a short learning curve and adequate dexterity. The aim of this presentation is to describe the use of the piezoelectric ultrasonic device particularly in the upper orbito-cranio & maxillofacial area.

Piezosurgery in mandibular osteotomies, reconstructive procedures, distraction osteogenesis & regeneration - Manlio Galiè, Ferrara - Italy

Mandibular osteotomy is a surgical procedure which involves cutting of mandibular bone for shortening, lengthening or changing the position. Conventional tools used in osteotomy and osteoplasty of the mandible include rotating/oscillating saws, drills, hammers and chisels. Using rotating and oscillating tools the risk of damage to fine bone and soft tissue appears substantial. This represents a great concern when navigating around extremely delicate structures during neurological, craniofacial, maxillofacial, oral and orthopaedic surgeries. The Piezosurgery device was developed with the aim of enhancing the surgeon's ability to perform meticulous bone surgery, while reducing the risk of intraoperative and postoperative morbidity. The advantage of the Piezosurgery device over conventional tools is its ability to cut soft and hard tissues selectively, thus enabling the surgeon to confine tissue destruction to the areas planned and preserve adjacent structures, such as neurovascular tissue. These advantages appears to be substantial in paediatric and neonatal mandibular DO for the treatment of syndrome micrognathia and Pierre Robin sequence. Distraction Osteogenesis procedure requires minimally invasive approaches indeed and some studies confirmed the detrimental effect of an oscillating saw on bone formation. The use of Piezosurgery is mandatory in small surgical fields with limited view and in small mandibles to protect soft tissue, nerves and tooth buds. Distraction Osteogenesis and Piezosurgery appears to be synergic as DO requires microvasculature from the periosteum, preservation of soft tissue and a dynamic biological microenvironment as provided by Piezosurgery bone cutting.

Experience with the Mectron Medical Piezosurgery unit - Mark McGurk, London - Great Britain

Presentation of experience with Piezosurgery in Maxillofacial Reconstruction and Oral Surgery.

Hands-on will give to the participants the chance of trying PIEZOSURGERY® devices. Mectron will fully equip working stations and animal bones will be available to the surgeons to experience the advantages of PIEZOSURGERY® devices.

FACULTY



Dr. Alexandre Anesi attended his Maxillo-facial Surgery training at the Medical University of Verona with Prof. Pier Francesco Nocini and Prof. Luigi Chiarini. Since November 2008: Assistant Professor in Maxillo-facial Surgery at the University Hospital of Modena with prof. Luigi Chiarini. He is in charge of head & neck microsurgical reconstruction in Maxillo-facial Surgery at the University Hospital of Modena. Speaker in the following congress: Società Italiana di Chirurgia Maxillo-facciale (SICMF); European Association for Cranio-Maxillo-Facial Surgery (EACMF); Cervico-cephalic Oncological Italian Society (AIOCC - Associazione Italiana di Oncologia Cervico-Cefalica), Skull-base Italian society (SIB - Società Italiana Basecranio), 2nd Italian Congress on Cranioplasty (Secondo Convegno Nazionale sulla Cranioplastica). He currently collaborates with the Faculty of Engineering, University of Modena and Reggio Emilia for the development of new bone substitutes, both in vitro and in vivo. He is cooperating in a histomorphometric anatomical group for bone analysis after osteotomy with traditional osteotome and piezosurgery.



Prof. Luigi C. Clauser is a specialist in Maxillofacial Surgery and Odontostomatology and is Clinical Professor and Director of the Unit of Cranio-Maxillo-Facial Surgery of the University Hospital of Ferrara, Italy. His expertise covers facial reconstruction, implantology, orthognathic surgery, traumatology, orbital surgery, oral surgery, treatment of temporomandibular joint dysfunctions, and aesthetic surgery. He is an expert in the treatment of congenital craniofacial malformations and in the multidisciplinary treatment of exophthalmos in Graves' disease. Reconstruction of facial volumes by using fat grafting is also one of his main interests. Prof. Clauser was one of the last of Paul Tessier's pupils in Paris. From 2006 to 2008, he held the position of President of the EACMF. He is an advocate for promoting Maxillofacial Surgery in Eastern Europe and other continents with limited resources. Prof. Clauser has had the privilege of being an invited speaker at many congresses and scientific events worldwide. He has authored over 230 scientific publications, 8 chapters in books, and is a reviewer for many international scientific journals. In May 2012, Prof. Clauser was invited to deliver the prestigious Wilhelmsen Lecture in Baltimore, USA, as a special recognition for his remarkable contributions to craniofacial sciences.



Prof. Manlio Galiè is clinical Professor at the St. Anna University Hospital of Ferrara, Department of Cranio Maxillo Facial Surgery - Center for Orbital Pathology & Surgery. He has completed formal training in both Medicine MD and Dentistry DMD and he specializes in Maxillo-Facial Surgery and in ENT Surgery. Dr. Galiè has lectured as invited speaker to numerous Seminars, Meetings, Roundtables and Congresses in Italy, Europe, and Worldwide. Author of over 70 publications in National and International Journals he is a Member of the Editorial Board of the Journal of Cranio-Maxillofacial Surgery and of the Journal of Craniomaxillofacial Trauma and Reconstruction. International Fellow at University of California, Los Angeles (UCLA), Craniofacial Center. Fellow of the European Board of Oro - Maxillo - Facial Surgery (FEBOMFS). Education & Training Officer of the European Association for Cranio-Maxillo-Facial Surgery (EACMF). Member of the European Clinical Network: EUORCRAN and ORPHANET. Member of the following Associations: EACMF (Member of the Executive Committee), SILPS, SICMFS (Member of the Executive Committee), IAOMS, ISCSF.



Prof. Mark McGurk's clinical practice has centred on oral/head and neck cancer surgery and the minimally invasive management of salivary gland disease. His research has focused on early diagnosis of head and neck cancer, factors leading to complications of surgery and the introduction of minimally surgery to the head and neck cancer. Professor McGurk is part of the south east London Head and Neck Cancer Group and provides a highly specialist service in oral/head and neck cancer and reconstruction. He has championed minimally invasive surgery for benign parotid tumours and obstructive salivary gland disorders. He has led a European trial of sentinel node biopsy which has led to a 75% reduction in neck dissection for early mouth cancers (first in the UK). Professor McGurk's work has changed the practice of salivary gland surgery away from excision to the gland preservation surgery (first in the UK). He lectures widely at national and international conferences and runs annual masterclasses on salivary gland surgery in London, Paris and Erlangen for maxillofacial and ear, nose and throat consultants. He is Past President of the British Association of Oral and Maxillofacial Surgeons and Past Editor of the British Journal of Oral and Maxillofacial Surgery.



Dr. Riccardo Tieghi is Staff Member at the St. Anna University Hospital of Ferrara, Unit of Cranio Maxillofacial Surgery - Center for Orbital Pathology & Surgery. Author of several publications in National and International Journals, is Reviewer for the Journal of Cranio and Maxillofacial Surgery and for the British Journal of Oral and Maxillofacial Surgery. Dr. Tieghi has lectured as invited speaker to numerous Seminars, and Congresses. Member of national and international societies. He was also visiting Doctor in different Units worldwide: Active Resident at the University of Washington-Seattle (USA), Plastic and Reconstructive Surgery; Bruges (Belgium), Maxillofacial Surgery; Freiburg (Germany), Maxillofacial Surgery; Wessling (Germany) Plastic and Reconstructive Surgery; New York University (USA) Plastic and Reconstructive Surgery. Main fields of interest: Craniofacial surgery, Traumatology, Orthognathic Surgery, Distraction osteogenesis. Current researches involve: distraction osteogenesis, orbital pathology and surgery, endoscopic surgery, fat grafting, stem cells & tissue engineering. Dr. Tieghi is member of the Italian Association of Maxillofacial Surgery (SICMF), European Association for Cranio and Maxillofacial Surgery (EACMF), International Society of Craniofacial Surgery (ISCSF). He is also responsible for promoting Maxillofacial Surgery throughout Europe and Eastern Countries (EACMF Educational Rolling Programmes).

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