First International Anthogyr leader’s meeting

February the 5th and 6th 2009. Sallanches - France.

« Global solution for dental implant »
A word of introduction

In these two meeting days, around 20 dental practitioners came from 9 different countries to the new Anthogyr headquarters in Sallanches at the very heart of the Mont blanc and the alps mountains for an exchange of their knowledge about esthetics and the treatment of bone deficiencies in oral implantology.

This first edition of the International Anthogyr leader’s meeting was scientifically coordinated by the Pr. Jean-Pierre Bernard a recognized personality in implantology; he is in charge of the Department of Stomatolgy and Oral Surgery at the School of Dental Medicine in Geneva, Switzerland, and Dr Jacques Vermeulen, trainer at Marseille’s Oral Implantology College and expert in oral implantology from the German Implantology Association and the French Implantology Association; they were accompanied by Drs. Fransischone from Brazil (Father and son), Drs Kessaris and Hatjigiorgis from Greece, Drs Beikircher, Bailo, Filippini, and Tura from Italy, Drs Vaz and Saraiva from Portugal, Drs Put and Zhdanov from Russia, Dr Yaman from Turkey, Dr Al Masri from Syria, and Drs Fortin and Rousselet from France.

They presented their clinical experiences and passed on review the protocols of two main subjects: esthetics in oral implantology and bone deficiency treatment in oral implantology.

Esthetics in implantology

For this topic the lecturers where presenting different clinical cases paying particular attention to some techniques like the extraction and immediate implantation, the “real” esthetics considerations, a single teeth rehabilitation and a plural tooth in an anterior sector rehabilitation, the flapless surgery with predictable results, the CAD/CAM system and the use of zirconium and the CT scan system.

Bone deficiency treatment

Sometimes bone thickness is not enough for oral implantation, the interest of a preoperative planning, bone grafting and alternative solutions to these techniques where discussed by the lecturers; implant supported removable prosthesis and guided surgery where also exposed.

These two days agreements

The entire group came to a unanimous agreement about the current trends in oral implantology for a simplification of the techniques in order to make it reachable to all dental practitioners. The less invasive and aggressive techniques are profitable not only for the practitioner but for the patient.

You will find in this document a summary of the two days presentations and an approach to the background of each one of the international lectures presents for this event.
Summary

A word of introduction p.2

Summary p.3

I. How to get esthetics in implantology ?

I. 1. ZHDANOV EVGENY (Russia). The Innovative Approach to the Treatment of Total Edentulism and Advanced Maxillary Alveolar Atrophy p.4

I. 2. BEIKIRCHER ALEXANDER (Italy). About a clinical case: p.9

I 3. HATJORJIS COSTAS (Greece). Esthetic... and Not So Esthetic Considerations p.10

I. 4. BAILO ANDREA (Italy). Esthetic clinical case presentation p.14

I. 5. FRANCISCHONE CARLOS E (Brazil). How to plan and rehabilitate single-tooth and adjacent losses in esthetic regions. A New Concept p.16

I. 6. FILIPPINI PAOLO (Italy). Post-extraction implant and immediate restoration on an upper central incisor p.20

I. 7. YAMAN ZEKAII (Turkey). Multiple-Unit Adjacent Maxillary Aterior Fixed Implant Restoration: Case Report p.23

I. 8. TURA FLAVIO (Italy). p.27

A clinical case treated by flapless surgery after preliminary surgical and radiological study. p.28

I. 9. AL MASRI MAJEED (Syria). When to replace teeth by implants

II. How to mange bone deficiency ?

II. 1. KESSARIS PANOS (Greece). Reconstruction of the atrophic posterior maxilla p.31

II. 2. VAZ VITOR (Portugal). The prosthetic choice p.35

II. 3. FRANCISCHONE CARLOS EDUARDO JR (Brazil). Less in more p.37

II. 4. PUT SERGEY (Russia). How to manage bone deficiency ? p.43

II. 5. SARAIVA RAOUl (Portugal). Implant supported overdentures p.47

II. 6. ROUSSELET BERTRAND (France). Basal implantology versus axial implantology or combination of the two techniques for the benefits of our patients. About two cases p.51

II. 7. FORTIN THOMAS (France). Guided surgery to avoid sinus grafting in situations with severe bone deficiencies p.55
Thursday, February The 5TH 2009

How to get esthetics in implantology?

I.1 ZHDANOV EVGENY Russia

In 1989, he graduated from Moscow State Stomatological Institute and from 1989 to 1991 attended a 2-year postgraduate training course (clinical residency) in surgical dentistry in Moscow District Scientific Research Institute (named after Vladimirskey).

From 1991 to 1997 Dr. Zhdanov worked as a research fellow in the above-named institute.

Since 1997 he has been a founder, owner, chief dentist and chief dental surgeon of DOMODENT dental clinic.

In 2003 Dr. Zhdanov defended his dissertation and received a degree of candidate of medical sciences.

For many years he has been performing dental implantation and bone reconstructive surgery.

Since 2001 he has been using ANTHOGYR implant systems.

Presentation:

The Innovative approach to the Treatment of Total Edentulism and Advanced Maxillary Alveolar Atrophy.

A clinical case about the surgical preparation and prosthodontic treatment of total edentulism and advanced bone atrophy followed by alveolar reconstruction with tibial autografts and Anthofit implant-supported removable prosthesis on telescopic crowns and a zirconium framework (with the use of CAD/CAM technique and galvanoplasty).

A 56-y.o. male patient presented himself at our clinic on the 31st of January, 2008, for prosthodontics. The patient was a non-smoker and otherwise healthy. In the maxilla, 3 remaining teeth were mobiles (grade III) and extracted. In the mandible, both canines remained. In the maxilla, the alveolar process had Division C or D atrophy (according to 1985 Misch & Judy classification). In the mandible, Division B atrophy was observed. Jaw relationship in the sagital plane was classified as pseudo-class III malocclusion (Fig. 1).
After physical/lab examinations, preliminary wax-up and computerized exam, the tooth roots were extracted and 8 Anthofit implants inserted in the mandible to seat a fixed ceramic-to-metal prosthesis. During the implant insertion, Kazanian vestibuloplasty was performed in the anterior mandible. (The prosthesis was made 4 months later).

To perform implant insertion, alveolar reconstruction with tibial cortical grafts (in the form of bone blocks and chips) and bilateral sinus-lifts with Bio-Oss grains were performed. For augmentation, the vestibular approach with elements of tunnel technique was used. The recipient and donor sites healed with primary intention. (Fig. 2, 3, 4)
In the maxilla, 6 implants were inserted to seat a fixed prosthesis on telescopic crowns. During implants insertion, the repaired bone had good vascularization and no signs of resorption. (Fig. 4) Repaired bone morphology stained with hematoxylin-eosin showed that grafted bone tissue was viable; it contained viable osteoblasts and osteocytes. At the periphery of the grafted bone young bone rods were being formed. (Fig.5)

4-mm Anthofit implants with internal octagonal connection were inserted in positions 1.3, 2.3, 2.5 and 5-mm in positions 1.7 and 2.7 at 5 months after grafting. (Fig. 6)

On tibial X-rays 6 months later complete bone repair was seen. (Fig. 7, 8)

The implant uncovery was performed 4 months later, with gingivoplasty by means of a free palatal epithelial flap split in the shape of mesh. Due to soft tissue surgery, implant abutments were surrounded with the dense attached keratinized gingiva. (Fig. 9)
Four weeks after the uncovery surgery, prosthodontics in the maxilla began. For provisional prosthodontic, interim abutments (implant carriers) with external hexagonal connection were used. The fabricated removable prosthesis was adapted to the inserted abutments. Due to the provisional restoration, the patients received fixed interim prosthesis soon after the uncovery (Fig. 10). During the fabrication of final prosthesis, the patient was rehabilitated prosthodontically.

For a final restoration, straight “Tin-plus” abutments with the collar height of 1 mm were chosen. To select abutments, orthopedic platform switch technique was used. The abutments were machined in a surveyor. Zirconium frameworks for the implant abutments were fabricated and machined with a dental turbine in the surveyor with an angle of 2° (Fig. 11).

In “AGC Micro Weiland” machine, galvanic caps for zirconium frameworks were fabricated (Fig. 12). A tertiary framework made of chromium-cobalt-based alloy was fabricated to place on the galvanic caps. The zirconium frameworks were cemented to the implant abutments with “Fuji+” cement. The tertiary framework was stuck to the galvanic caps with “Nimetic Cem” 3M Espe. (Fig. 13) The centric relation was determined. The restoration was checked in the oral cavity. Then, the final prosthesis was fixed (Fig. 14-17).
Publications:


Graduate in medicine 1982 University of Milano.
Specialized in odontostomatology 1985 University of Milano.
Certificate of Postgraduate Prostodontics at Tufts University Boston USA and Master Degree at the same university 1990.
Clinical assistent professor at Tufts University department of Prosto-
Speaker in 65 congresses and meetings in Europe and USA.
Member of the scientific committee of the international journal Team-
work Clinic.
Active Member of the Italian academy of prosthetic dentistry AIOP 
since 1983.

Presentation :

About a clinical case:

55 years old male patient with horizontally fractured upper left central incisor.
Extraction of the root and immediate placement of an implant and insertion of a provi-
sory abutment and crown.
Problematics:
- the choice of the implant
- the soft tissue preparation
- the secondary preparation of the tissues and the prosthetic choice
the case has been solved with a custom procera abutment in zirconia and an allumina procera crown.

Publications:

2. Author or Co-Author in 15 scientific publications about prosthetics.
Graduated in 1979 from the Dental School of the University of Athens, where he taught as an instructor until 1981. From 1981 until 1982, he did graduate studies in Occlusion and Temporomandibular Joint Disorders at Georgetown University in Washington D.C.

Thereafter, he completed graduate studies in Prosthodontics, earning a Masters Degree from the same University. From 1984 to 1985, he completed a residency program in Dental Oncology and Maxillofacial Prosthetics at M.D. Anderson Hospital of the University of Texas in Houston.

From 1985 until 1989, Dr. Hatjigiorgis taught in the department of Occlusion and Temporomandibular Joint Disorders at Georgetown University.

Subsequently and until 1992, he taught and served as Co-Director of the One Year Graduate Program in Prosthodontics at New York University College of Dentistry.

Currently, he is in private practice limited to prosthodontics as treatment of TMD in Athens, Greece.

Presentation:

**Esthetic…and Not So Esthetic Considerations.**

In cases where multiple teeth are missing, esthetics are codependents with the principles that govern prosthodontics. The esthetic outcome is highly influenced not only by patients’ perceptions/demands and their finances, but by the limitations of the materials and techniques used by the dentist.

**A clinical case:** 73 years old female patient who comes to have a prosthetic treatment, the dental situation is as follows (Fig 1-5).
What the patient asks for:
1. The least number of extractions
2. A smaller gap between my two front teeth
3. My front teeth sticking out less
4. Good lip support
5. Best quality dentistry
6. As inexpensive as possible
7. To finish fast

Facts and Other Considerations:
• Condition of existing teeth
• Bone location
A duplication of the cast and duplication of the tooth (plaster cast with wax) were made in order to make the temporary prosthesis that will be used immediately after dental extractions (Fig. 6-8).

Fig. 6 Duplication of the cast and duplication of the tooth (plaster cast with wax)

Fig. 7 Extractions and temporary prosthesis

Fig. 8 Post-extraction immediate temporary prosthesis

Patient’s situation scheme and picture after 2 months post-surgery; there are some hygiene problems (Fig. 9, 10). Dental implant placement scheme and surgery (Fig. 11-15)
Fig. 9, 10 Two months later picture with some hygiene problems

Fig. 11 Treatment planning

Fig. 12 Mandibular dental implants

Fig. 13 Screw retained implants

Fig. 14

Fig. 15
Graduated in Dentistry and Dental Prothesis in 2000 at the University of Brescia.
From 2001-2004 he takes part to the Complex Structure of Maxillo-Facial and Odontology Surgery of the Modena Policlinic directed by Prof. Ugo Consolo.
Odonto-stomatology and oral surgery studies – University of Modena e Reggio Emilia.
In 2004 he carries out some trials for the teaching of anaesthesia techniques to the CLOPD of Modena e Reggio Emilia.
Attended to many sessions about Oral and Implantology surgery in Italy and abroad.
Lecturer for the ANDI of Modena for the “piezzo electric” surgery day.

Presentation:

**Esthetic clinical case presentation.**

Patient situation: heavy decayed area in 12, 11, 21, 22. (Fig. 1, 2)
Treatment: 1.2 and 2.2 extractions, immediate implant in extractions’ sockets (Fig. 3), a temporary framework is going to be used for 6 months (Fig. 4); metal pivot on 1.1 and 2.1 (Fig. 5), and ceramic crowns on 1.3, 1.2, 1.1, 2.1, and 2.2 after 6 months from the first surgery (Fig. 6, 7).
Fig.1 Panoramic x-ray before surgery

Fig.2

Fig.3 X-ray after implant placement

Fig.4 Temporary framework for 6 months

Fig.5 Metal pivots and 4mm diameter abutment

Fig.6 Final bridge in place

Fig.7 After 6 months: a good reconstruction of the papilla can be seen

Publications:
His clinical cases have appeared in the Progression magazine (Italy)
Presentation:

*How to plan and rehabilitate single-tooth and adjacent losses in esthetic regions. A New Concept.*

**First clinical case:** The central incisor will be extracted due to a large coronal fracture and the presence of external root resorption, a slow orthodontic extrusion was done to bring the bone tissue and reduce the bone defect after root removal (Fig 1).

The bone defect was filled with autogenous bone chips and connective tissue graft to ensure hard and soft tissue volumes for further implant placement and gingival esthetics (Fig. 2). The surgical procedures for ideal implant placement are followed by a gingival conditioning with a provisional crown to create optimal contour and gingival papilla. Dental whitening was performed (Fig. 3).
A zirconia esthetic abutment was connected having a chamfer finishing line. An all-ceram procera crown was cemented over the abutment. An excellent gingival scalloping is observed. The main factor here is the height of the alveolar bone crest on the tooth adjacent to the implant (Fig. 4).

Esthetic is optimized by multidisciplinary integration of implantology, periodontics, orthodontics, prosthodontics and restorative dentistry.

Second clinical case: agenesis of the left and right lateral maxillary incisors. The edentulous space was retrieved by orthodontic movement for installation of two implants (Fig 5).

There is an excellent quality of the gingival around the zirconia abutments. Adequate esthetic and gingival rehabilitation is shown during patient’s smile.

The height of gingival papilla was obtained and kept due to the bone crest adjacent to the implants as shown in the 5-year follow up x-ray (Fig. 6).

Excellence in esthetics is determined by harmonious transition between white (the crown) and pink (the gingival) esthetics in patients with high smile line.

When to replace 2 or 3 adjacent teeth by 1 or 2 implants?
Thinking about paradigm changes on prosthetics and orthodontic fields, when the missing of teeth is due to extraction or agenesis, neither alveolar bone crest nor gingival papilla are found as shown in this simulation case (Fig. 7).
Adjacent tooth loss causes flattening of the alveolar bone crest and gingival (Fig. 8). Placement of 2 or 3 adjacent implants can compromise esthetics as shown in these two clinical cases. The gingival scalloping is totally reversed between the two implants due to a loss of the alveolar bone crest height. There is a presence of gingival papilla between teeth and implants, it happens because there is an alveolar bone crest near the teeth adjacent to the implants.

**But how to solve this serious esthetic problem?**

This table shows a clinical evaluation with two adjacent implants regarding the height of the gingival papilla (Fig. 9). When the central and lateral incisors or the lateral incisors and canine are lost, there is a partial or total loss of papilla in 100% of cases.

When the central incisors are lost, the gingival papilla height accounts for 40%.

If we consider that more than 40% represents only 1mm less of papilla tissue between the central incisors exactly at the dental midline it is easy to solve this case in terms of esthetics because we do not have the opposite side to compare with.

The missing of two central incisors must be replaced by two implants and single crowns, as shown in this case. The gingival papilla fills completely the embrasure between the central incisors. The x-rays show the full height of the alveolar bone crest at the midline (Fig. 10).
When the lateral and central incisors or the canine and lateral incisor teeth are absent, a single implant is installed to support a cantilever prosthesis as shown in this case (Fig. 11). There is an excellent gingival esthetics, keeping the bone level at the lateral upper incisor area. In this 11 year follow-up there is excellent esthetics and the maintenance of alveolar bone at the lateral upper incisor area (Fig. 12).

Another solution for adjacent losses is to turn them into single losses by orthodontic movement (Fig. 13). In this clinical case, the double loss became a single loss in the right side. A triple loss became a double single loss with a premolar tooth between them in the left side. In this way, the gingival papilla can be found because there is good height of alveolar bone crest at the proximal surfaces of teeth adjacent to the implants as seen in the lower side (Fig. 14).

Publication:
Graduated from the University of Padua in 1982, Post graduate in Odontostomatology at the University of Verona in 1985 and began an active involvement with the Periodontal Department under the direction of Professor Giacomo Urbani.

Assistant at the Dental Clinic of the University of Verona 1989.

From 1992 to 2000 he taught implant prosthesis at the CLOPD (Corso di Laurea in Odontoiatria e Protesi Dentaria) of the University of Verona.

In 2000 he decided to dedicate himself to a freelance career and consultancy in the field of periodontology and implantology. To this end, he resigned from his positions at the Dental Clinic and the CLOPD at the University of Verona, although he continued until 2007 to teach the prosthodontic course for students taking a degree in Dental Hygiene at the University of Verona.

Since 1989 dental implant rehabilitation has been a field of research and practice which Dr. Filippini has been increasingly engaged in.

Dr. Filippini is an active member of the Italian Endodontic Society and Italian Society of Osseointegration.

Presentation:

**Post-extraction implant and immediate restoration on an upper central incisor.**

The objective of his work is to emphasize on the stress on the post-extraction implant insertion not in order to biological aspects, but in relation to the spatial position of the fixture, as required by the remaining alveolar structures and the esthetic and functional needs of the following prosthetic procedure (Fig. 1, 2).

**First clinical case:** Due to a large coronal fracture, the central incisor (11) will be extracted; an implant is immediately placed in the socket (Fig 3-5). A single crown is placed and we can observe an optimal contour and gingival papilla; the height of gingival papilla was obtained due to the bone crest maintenance adjacent to the implant (Fig. 6-9).
2nd clinical case: The root resorption problem demanded the extraction of the tooth; an implant is immediately placed and the prosthetic part is prepared in order to conserve both gingival and bone level for a high esthetic result (Fig. 10-19).
Publications:

Presentation:

Multiple-Unit Adjacent Maxillary Anterior Fixed Implant Restoration: Case Report.

26 years old female patient who is a Dentist admitted for dental treatment. Her medical history was unremarkable without allergies or systemic diseases. Intraoral clinical examination showed fistulas and pus drainage at the apex of the teeth #11 and 46. She had posterior cross bite occlusal relationship. Severe periodontal infection and bleeding on probing were observed around the maxillary incisors. (Fig. 1)
On the radiologic examination, interradicular lesion of the # 46; and peri-radicular radioluscencies around the apex of the maxillary incisors were observed (Fig. 2). Further radiologic evaluation using CT scan was exposed the erosion of the buccal bone plate by the infection around # 11. Sagital sections of CT scan also confirmed that the buccal bone around the incisors was thin and absent in some places. (Fig. 3)

Treatment scheme: extraction of the molar on the mandible, and incisors on the maxilla for further replacement with implants. Mandibular treatment plan consisted of the extraction of the #46 with site preservation and waiting for 2 months for soft tissue healing. Since the mesio-distal width of the edentulous gap is 14 mm, we planned placing two implants and restoring them with two premolar sized crowns (Fig. 4, 5).
Two 3.75 mm diameter implants were placed and after 3 months they were restored with two unsplinted pre-molar sized Zirconium crowns.

Maxillary treatment plan consisted on the extraction of the teeth #12, 11, 21, 22 with site preservation (Fig. 6) and waiting at least for 4 months post-implant placement, and crown restorations 6 months later. Extracted #11 showed a vertical root fracture and #12 and 21 showed an extruded gutta percha cones which may explain why the patient have persistent infections on incisors.

All the granulation tissues were carefully removed and sharp bony rims were levelled using piezosurgical instrument. Extraction socket were filled with Bio-Oss material and covered with resorbable membrane. Primary closure was achieved by periosteal releasing incisions (Fig. 6).

A fixed provisional restoration with ovate pontic design in order to create papilla formations was cemented over natural canine abutments (Fig. 7).

After four months, a simple radiologic stent was fabricated and a CT scan was taken (Fig. 8). Four implants were placed to replace the maxillary incisors using the Stent Cad 3D implant treatment planning software. Three surgical guides for 2.0, 2.5, and 3.0 mm diameter size drills were fabricated according to the Stent Cad planning data.

Four months later four Anthofit OI straight implants 3.5 mm in diameter were placed with the guidance of the surgical stents. After six months implants were uncovered with the aid of the surgical stent which was used during the placement of the implants. After two weeks 0 degree standard titanium abutments were prepared directly in the mouth to define the gingival finish line and then an impression was made for crown fabrication. (Fig. 9, 10)
Zirconium unsplinted single crowns were cemented using dual cure composite resin material (Fig. 11).

Using the words of Dr Bernard to conclude, “To date a scalloped course of the peri-implant mucosa cannot be predictably achieved around multiple adjacent maxillary anterior fixed implant restorations, and as an increased clinical crown length is normally inherent in this approach as well, the preoperative assessment of the patient’s lip line or smile line is of primary importance during the related decision-making process.”

Postoperative panoramic radiography shows the final results (Figs. 12, 13).
Publications:

Graduated from the university in Padua (1983).
Specialized in implantology at the Goeteborg University (1990).
Specialized in forensic dentistry at the university of Florence (2005).
Member of the Italian academy of prosthodontics.
Member of the Italian society of osseointegration.
Member of the Italian society of periodontology.
Speaker in national and international congresses since 1998.
Author of numerous articles published on Italian, French, German, American and Canadians magazines.
Co-author of the book: - Nuovi materiali in odontoiatria protesica -. 
Private practice in Bassano del Grappa (since1984).

Presentation :

A clinical case treated by flapless surgery after preliminary surgical and radiological study.

Summary: the complex implant cases need an accurate preliminary surgical and radiological study. Today to achieve an optimal esthetical and clinical result we need to use technical and computer aided devices. In the presentation of the following case with the use of a CAD/cam system we can prepare the custom abutments and achieve optimal emergence profile and gingival shape.
The case is a 55 years old edentulous patient in both arches treated with 2 upper and lower splint supported by implants.
Presentation:

When to replace teeth by implants.

Several factors influence whether to maintain or replace teeth with implants.

Three different variables are important to achieve adequate treatment whether to extract a tooth (or teeth) or not:

I. The dental status:
This is the key factor in the decision making process. It will determine the necessary treatment to remove disease and restore teeth. When the tooth is hopeless (as in the case of vertical fractures) it must be removed. The two other variables will determine the rehabilitation type to be executed.

Within tooth variables:
1- Endodontic treatment.
2- Periodontal treatment.
3- Restorations.
4- Orthodontic treatment.

These variables must be considered for each dental situation. They must consider the tooth role in the treatment planning.

Publications:
Overall treatment planning: the importance of a tooth within the overall planning must be considered; is the tooth considered a fixed or removable prosthesis abutment? The implant treatment is been considered within the same or to adjacent quadrant? If the tooth must serve as an abutment, additional stresses will be generated. Thus, tooth replacement must be considered when implant therapy is planned for the same quadrant.

II. The patients:
Patient variables includes
1- Social history
2- Medical conditions
3- Economic factors
4- Motivation
5- Chief complaint
6- Caries
7- Periodontal disease susceptibility
8- As well as esthetic desires.
The esthetic desire, especially in the anterior region, along with patient's age, high lip line and periodontal phenotype are decisive and must be thoroughly evaluated to achieve success in implant dentistry.

III. The implant itself
The implant treatment must be considered:
1- Simple treatment
2- Low level of complexity
3- Complex treatment

Esthetic factors related to:

**Tooth preservation:**
1. High lip line
2. Two adjacent implants
3. Loss of adjacent periodontal ligament
4. Thin-scalloped gingival phenotype
5. Intact dentition
6. Great esthetic demander

**Implant placement:**
1. Low lip line
2. Single implant, pontic related
3. Adjacent teeth without loss of periodontal ligament
4. Thick-flat gingival phenotype
5. Recession, black triangle
6. Low esthetic demand

**Clinical case:** A 62 year old male patient, heavy smoker with periodontal disease and pathological tooth mobility, has missing teeth in the molar and anterior region (Fig. 1). His desire was to have a full mouth implant treatment. He was treated with Ossfit, Anthofit tapered and straight implants (Fig. 2, 3).
The final prosthesis was a complete zirconium bridge for the maxilla and the mandible (Fig. 4-6).
Graduated from Athens university Dental school in 1991. Completed the full program of oral and maxillofacial surgery (4 years) at BAYLOR University medical center of Dallas University, Texas.

Presentation:

Reconstruction of the atrophic posterior maxilla.

The use of autogenous bone grafts remains as a golden standard (Fig. 1). In older patients though, the morbidity and mortality is significantly increased adding the resorption percentage, during the remodeling phase, is much larger.

Fig. 1

Two clinical cases will be presented with severe maxillary atrophy. The first clinical case is a 68 years old patient, the classic autogenous bone harvest was performed (anterior hip) and several implants were placed for fixed prosthesis (Fig. 2-5)
The biologic growth factors introduce a great value in bone regeneration and augmentation and work really well as a complimentary technique.

The second clinical case is a 47 years old patient, a classic sinus lift procedure was performed but instead of other alloplastic materials BMP-2 was placed in layers (with collagen sponge) for augmentation (Fig. 6-11). After 6-8 weeks there is a safe loading of the single tooth implant (Fig. 12).

The Bone Morphogenetic Proteine (BMP-2) has an osseoinductive result which works through the differentiation of the mesenchymal cells to osteoblasts.
The growth factors of the Platelet Rich Plasma (PRP – centrifuged autogenous blood) attract the mesenchymal and endothelial cells promoting osteogenesis and angiogenesis. (Fig 13-19)
There are advantages and disadvantages of autogenous bone harvest regarding the final benefit. 50% of calcification is made the first six months without loading of the implant. After 6 months the beginning of the resorption appears and 30-60% of the graft is lost...

Research is about to give us new alternatives to grafting as stem cells from wisdom teeth...(Fig. 20)
Degree in implantology (I.D.I system) - Dr. Jilles Boukhris, Dr Verard Boukhris-Porto 2005.
Degree in introduction to the Implantology of 3i of Dr. John Caramês, Dr. Nuno Oliveira and Dr. Roque Oliveira, Lisbon 2003/2004.
Degree in Operative Dentistry, Dr.Narciso Baratieri, Lisbon 1995.
Degree in Prosthetic Surgery of Dr. Russel Hopkins and Dr. Adrian Sugar, Lisbon 1995.
Medical Director at the Dental Clinic of the Marquês de Pombal in Lisbon, 1998-2001.
Private practice in Alhandra, Portugal and creation of 2 other dental clinics.

Presentation:

The prosthetic choice.

The patient, a 46 years old man, was already using Partial Removable Prosthesis for more than 10 years, and he was a chronic smoker.
The dental implants used in these clinical case were internal connection ones but it might be of external connection too because it would simplify the laboratory work (confection of a bar).
It was extremely important the space between the dental ridges, superior to 15 mm.

Publications:
The placement of 5 mandibular implants straight IO 4 x 15 mm was made. The surgical guide was the acrylic Partial Removable Prosthesis that the patient used (Fig. 1-9).

The bone was type I with good conditions for the insertion of the dental implants. There were 3 months since the implant placement up to the final structure (Fig. 10-13).
Presentation:

Less is more.

Demography of the toothless populations - USA:
- 37.8 million Americans toothless, in 2020.
- The toothless population is not restricted to the oldest and poorer.
- 90% of the edentulous patients are used of removable prostheses to solve their problems.
When we have resorption problems, the main subject is how to treat them. And the key point is the planning of this treatment in order to preserve the patient from grafting (Fig. 1-3).

The technique all on 4 (Fig 4): we use 2 dental implant of 18 mm and 2 short dental implants to treat the patient as the example of this clinical case (Fig. 5-8).
But we can not treat all the patients with this technique and we have to give other alternatives. As this complex case where (Fig 9-11) a chronic osteomyelitis was diagnosed by biopsy while the planning of the treatment was being done (Fig. 12-17).
Surgical treatment was made and a provisional prosthesis was placed in the mandible (Fig. 18-22).
Maxillary treatment was previewed and the surgical and prosthetic treatment were done (Fig. 23-28).
Final panoramic x-ray was made to control (Fig. 29), and the result can be seen in this final picture (Fig. 30)
Graduated from Moscow Medical Stomatological Institute
Specialized in dentistry anesthesiology (1989).
Assistant of surgical dentistry department in the Moscow Medical Academy.
Centre of dentistry rehabilitation and of information medicine technology (2004).

Presentation:

How to manage bone deficiency?

1st clinical case: Patient that comes to replace teeth in position 22, 35 and 36. A graft was made in all the sites due to the bone deficiency. (Fig. 1-16)
2nd Clinical case: a high resorption of the maxillas is observed in this patient, a bone graft was made in order to rehabilitate the patient. (Fig. 17-23)
Graduated from the Dental Medicine School/Medical School St. John’s General Hospital - Oporto University – (1986)
Invited assistant of Biomaterials and dental materials discipline -dental surgeons curricular plan -at the CESPU (1990/1992)
Director of the stomatology and dental medicine service at the/ D. Pedro V -/Military Hospital - Oporto (1992 to 2005).
Actual director of the dental implants dep. at the Military Hospital in Oporto.
Dental Surgeon of the Portuguese army with the rank of major, practicing both in the Military Hospitals as in his private clinics at Oporto.
www.clilapa.com

Presentation :

Implant supported overdentures.

The implant-bar supported removable prosthesis is a prosthetic solution regarding an affordable and a very effective way to stabilize complete mandibular prosthesis.
It’s a cheap and effective way to rehabilitate people with total mandibular lost of teeth and great resorption of alveolar bone using only 2 axial implants and avoiding bone graft and basal surgery.

The indications for implant supported overdentures:
-Where complete prosthesis has been worn for a long time but the extreme bone resorption and or loss of neuromuscular control limits retention and stability.
-Where a fixed restoration is not possible due to posterior bone loss.
-Where a fixed prosthesis cannot provide enough replacement of resorbed soft and hard tissues.
-When the patient has accepted the tooth loss and doesn’t mind to use dentures.
-When the patient refuses other surgical alternatives (basal implantology or bone graft).
-Low budget patients.

The Advantages of implant supported overdentures:
- Effective prosthesis stabilization.
- Simple and low-invasive surgery. (Primum non nocere)
- Best soft tissues support (peribuccal contour improvement)
- Masticatory forces distribution not only over the implants but also over the remaining bone and mucous.
- Economical and low-tech.

Publications:
- Easy hygiene.
Technical considerations (Fig. 1):
- Implants located on 32/33 and 42/43 region.
- Too Short or too long bars: Function problems
- Diagonal bars: Torsion loads

1st clinical case (Fig 2-8): 69 years old female patient suffering for high blood-pressure and gastric disease (being treated). No other major problems known. Total edentulous over 15 years; her mandibular prosthesis is unstable and hurting. She’d like her mandibular prosthesis stabilized, a fast treatment (doesn’t want to wait 3 month for O.I.) and Low cost and easy maintenance.

The treatment: Four Anthogyr MIB V 26140 placed in the anterior mandibular region; one stage surgery with immediate loading (Fig. 3-8).
2nd clinical case (Fig. 9-17): 60 years old male with bad oral condition: 11, 18, 21, 34, 38, 42, 43, 44 presenting extensive carious lesions (Fig. 9). No other systemic pathologies referred. He has never used any prosthesis. He had panic about dentists so he reached this unsustainable situation. The patients also showed concern about the possibility of prosthetic vomiting induction. Teeth extraction and implant surgery should be performed under general anaesthesia. Obtain aesthetics and masticatory function with a non-expensive treatment, avoiding the palatal extension of the maxillary prosthesis is the patients wish.
The treatment: #$4$ Anthogyr OICIM 35115 for the upper maxilla connected with a bar supporting overdenture. #$2$ Anthogyr OICIM 35130 for the mandible connected with a bar supporting overdenture. Two stage surgery with 3 month O.I. (Fig. 10-17).
Graduated from the Dental Surgery Faculty of Toulouse.
University degree in surgical and prosthetic implantology from the Lyon Faculty.
University degree in basal implantology from the medical faculty of Nice (in preparation).
Certification of Implantology study.
Trainings in periodontology, posturology, management, communication.
Member of International Implant Oral club (ICI).
Member of AFI.

Presentation:

Basal implantology versus axial implantology or combination of the two techniques for the benefits of our patients. About two cases.

1st clinical case: 55 years old male patient, bitemaral edentation since 7 years and an important nauseous reflex; no medical disease. Impossibility to keep his anterior teeth, can’t stand the idea of having a bone graft or removable prosthesis, and wants all his teeth to eat.
Only 3 teeth are not broken and strong enough to support prosthetics treatment, the others are frequently falling down and have to be resealed (Fig. 1). A panoramic x-ray was made in order to plan the treatment (Fig. 2, 3).
After a CT scan and an analysis with Simplant, there is a very thin crest in position 34 and only 5 mm above the dental nerve in both sides of the mandible (Fig. 3-6).

**The treatment:** Implant surgery with a basal solution should be performed under general anaesthesia in order to avoid bone graft, take prints while the patient sleeps and make an immediate loading of the implants (Fig. 7, 8).
The horizontal part of the mandible will be used; this is a bone with high density but poor vascularisation. The plaque is adapted to the mandible shape. It’s immediately fixed by the osteosynthesis screws (Fig. 8, 9). Then everything is covered by PRF in order to minimize the risk of exposure of the plaque through the mucosa. The key of success is: a total passivity and no micromovement over 100 Angstroms.

The prosthetic solution at day 2 (Fig. 10-12) and day 3 (Fig. 13, 14)
2nd clinical case: This second clinical case shows a maxillary edentulous patient treated by basal and axial implantology. The pre-operative panoramic x-ray was made (Fig. 16) and a post-operative surgery shows the correct position of the implants (Fig. 17). Final bridge (Fig. 18-20).
Guided surgery to avoid sinus grafting in situations with severe bone deficiencies.

In severely resorbed posterior maxillary, implant placement posterior to the first premolar requires bone grafting, a well documented procedure in the literature (Fig. 1).
Following the creation of a window in the buccal side of the sinus, the Schneiderian membrane is elevated prior to the placement of bone to increase the volume of bone (Fig. 2). Implant placement is delayed. The drawbacks of sinus lift are the increase in both treatment duration and cost, the choice of a donor site, possible surgical complications both on the donor and host site, and patient acceptance.

To overcome these negative aspects, using any anatomical features to place the implant, such as the anterior or posterior wall and the septa of the sinus, the palatal curvature, and the pterygoid process, has been suggested (Fig. 3, 4). Although this approach seems to be simpler, it requires a high level of skill and can become an invasive procedure if the sinus border is perforated to introduce a straight probe to note the inclination of the anterior and posterior part of the sinus wall.

In the past decade, the Image-Guided System (IGS) has been suggested for blind surgery, thus reducing the invasiveness of the surgical procedure. Whatever the technology used, navigation or template, the objectives of IGS are twofold: defining an operative strategy that takes advantage of the localizing capabilities of imaging and performing the previously defined operative procedure using a less invasive protocol with a suitable guidance system (Fig. 5-16). Several authors have demonstrated the capability of IGS to place oral implants on bone with high accuracy. A CBCT machine is necessary for this kind of procedure.
The objective of this presentation is to detail the use of an IGS in severely resorbed posterior maxilla as a new option to place implants on a very limited amount of bone on the above mentioned anatomical features (Fig. 17-34).

A bone spreader is used instead of a first drill (Fig. 13).

Only one guide is used in all the stages of the treatment. (Fig. 5-9, 11, 18, 24, 25, 27-31).

In Fig. 34 we see the result of the treatment, there was no bone graft, and it was less time expensive and costless.
Publications: