ISSUE 30 MAR09

The Dental Probe

The Maltese Dental Journal

TIGER TREATMENT

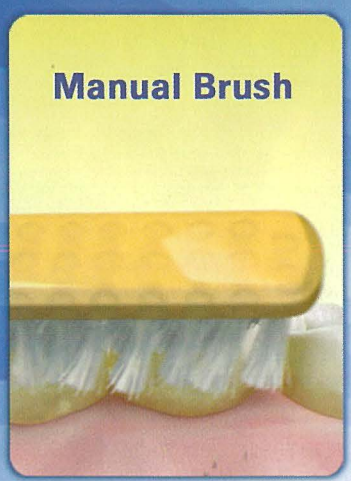
New

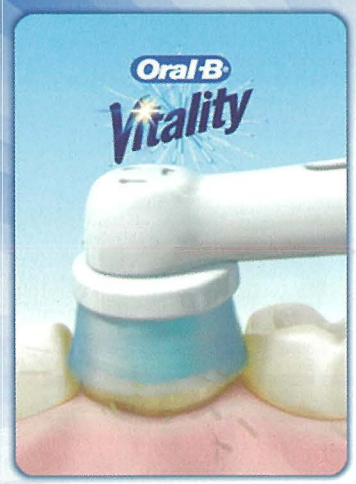
Oral-B®

Vitality™

Clinically proven

to reduce up to 2 times more plaque than regular manual brushes





Rechargeable

OK for use under shower

Best result with

Crest

Editorial

DENTAL ASSOCIATION OF MALTA
The Professional Centre,
Sliema Road, Gzira
Tel: 21 312888
Fax: 21 343002
Email: info@dam.com.mt

By Dr David Muscat

Welcome to another issue of our journal. The DAM committee has now changed and we have new blood. We have an eclectic line up of talent:

President, SAC Rep
Dr Adam Bartolo

Vice President, PRO, Editor 'The Probe'
Dr David Muscat

Secretary, Fed. Prof. Assns treasurer
Dr Paula Vassallo

Treasurer
Dr Matthew Cachia

EU Liasion Officer
Dr Audrey Camilleri

CPE Officer
Dr Robert Lautier

Social Events Organizer
Dr Lino Said

Rep. of DAM AT Fed. Prof. Associations
Dr Ethel Vento Zahra

IT Officer
Dr Nicholas Dougall

The AGM was very keenly attended this year with many people vying for committee positions. We thank the outgoing members namely Dr Martha Vella, Dr Edward Demarco ,Dr Alfred Magri Demajo and Dr Kevin Mulligan for their work throught the years.

David

The DAM AGM

Dental Association of Malta
Committee 2005-2007
Minutes of the annual general meeting held on Wednesday 21st January 2009 at the Malta Federation of Professional Associations, Gzira.

MEMBERS PRESENT:
Dr K Mulligan, Dr A Bartolo, Dr A Magri Demajo, Dr D Muscat, Dr N Busuttil Dougall, Dr Paula Vassallo, Dr Audrey Camilleri, Dr Edward Demarco

ALSO PRESENT:
Dr Joseph Xuereb, Dr Lino Said, Dr Simon Camilleri, Dr James Portelli, Dr Robert Lautier, Dr Matthew Cachia, Dr Ethel Zahra, Dr Kenneth Spiteri, Dr A Charles, Dr Chris Satariano, Dr Erica Zahra, Dr Kevin Briffa, Dr Jan Muscat

EXCUSED:
Dr Martha Vella

TREASURER'S REPORT (DR E DEMARCO):
See report on page 5.

SECRETARY'S REPORT (DR K MULLIGAN):
8 committee meetings were held throughout 2008, together with 1 annual general meeting and 1 extraordinary general meeting in September.

There were 14 lectures held and 4 hands-on courses. With respect to social events, 4 sponsored dinners were held as well as the traditional St Apollonia day in Rabat. The annual Christmas part was also held in December.

INTERNATIONAL LIAISON OFFICER REPORT (DR A CAMILLERI):
See report on page 5.

ADDRESS BY DR DAVID MUSCAT:
Dr Muscat stated that "The Probe" has now been elevated to the standard of a journal and that an Italian periodontist should be coming to Malta to present a lecture.

A talk was held by Mr Thomas Attard from Mediterranean Insurance Brokers regarding packages for dentists.

There being no other issues to be discussed, meeting was adjourned.

Dr. M Vella, President
Dr K Mulligan, Secretary

LATEST/PLANNED EVENTS

21 JANUARY
AGM AND MIB LECTURE (sponsored by MIB).

10 FEBRUARY
St Apollonia event at tas-Silg with mass followed by lunch at il-Carrubia with a quiz and walkabout. Quiz sponsored by G Farrugia and Sons.

19 FEBRUARY
DAM Vinum wine tasting in Mdina. Prizes for quiz sponsored by G Farrugia and Sons.

24 FEBRUARY
Dr Mark Ide Consultant Periodontologist from Kings 'The periodontal-restorative interface and peri-implantitis'. Kindly sponsored by Sanofi Aventis at mfpb.

4 MARCH
DAM executive meeting with Volksbank.

13 MARCH
Cherubino lecture at Corinthia San Gorg. 'Sybron Endo' presentation by Professor Gambarino.

22 APRIL
A DAM-Puttinu Cares fundraising event. 10 euro to be collected from each attendee. Lecture on 'Cuisine during period of Knights of St John' appropriately to be held at The Malta Maritime museum in Birgu. The lecturer will be Mr Liam Cauchi – the curator. There will be a dinner at Don Berto after the lecture and this will be kindly sponsored by MEPHA, agents for Fittydent and Irfen.

23 APRIL
Bart Enterprises launch of Phillips Flexcare Toothbrush.

14 MAY
Professor Amiatti – lecture on perio-dontology at mfpb sponsored by GSK.

JUNE
(Planned) A NOPRILAM event (Associated Drug Co). Lecture by Stephen Spiteri on Maltese History with a Medical slant.

CUCCAGNA EVENTS
Planned by ProHealth.

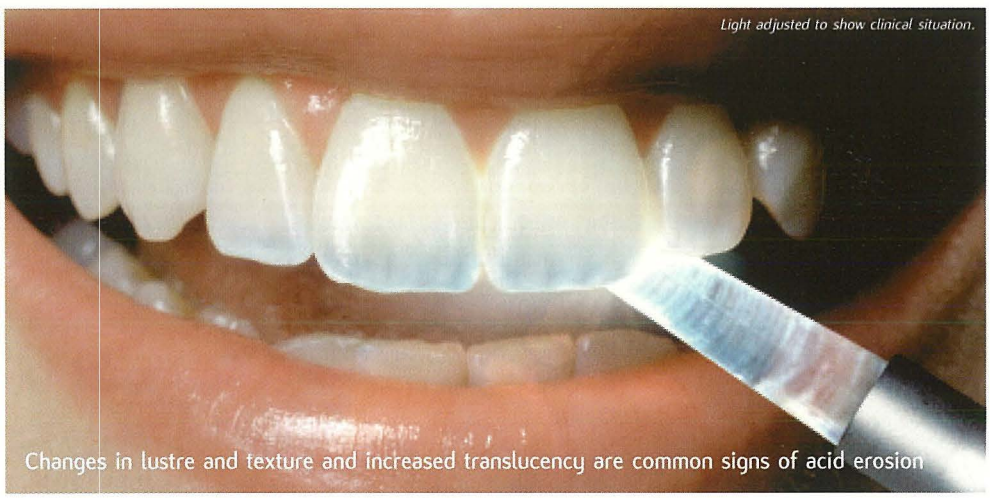
POSSIBLE
An abseiling event in summer at Mtahleb – depending on interest. Follow in the footsteps of Count Roger. Please advise David if you wish to participate.

PLANNED
Wands wine tasting in conjunction with Sanofi Aventis planned

Acid Erosion. Exposed.

Evolving challenges in oral health

One of dentistry's many successes is to have reduced the prevalance of caries and periodontal diseases, extending the longevity of the natural dentition. Infectious diseases have given way to a spectrum of degenerative conditions, one of which is the multifactorial challenge of tooth surface loss.



Changes in lustre and texture and increased translucency are common signs of acid erosion

The healthy diet paradox

Tooth wear has much to do with the modern, health-conscious lifestyle. Diets today are often high in acid from sources including certain soft drinks and fruit juices. These demineralise and soften the tooth surface making it more susceptible to physical damage and tooth wear. Acid erosion is normally an insidious process, often only highlighted by clinicians when restorative dentistry is indicated.

Early intervention is key

Increased awareness at routine examination added to lifestyle advice may help prevent sensitivity, changes in colour and tooth shape; and ultimately the need for major restoration.

Expert advice is now available

As awareness grows, acid erosion is featuring increasingly significantly in the management of long-term dental health. With this in mind, product innovation and public education are high on our agenda.

Recognising the early stages of acid erosion can be as simple as switching on a light. For expert guidance on signs, symptoms and management, visit www.aciderosion.com

gsk

GlaxoSmithKline

Fighting against acid erosion

DENTAL ASSOCIATION OF MALTA

TREASURER'S REPORT 2008

INCOME 2008

MEMBERSHIP FEES + BADGES (118 mem)	5,298.62
PROBE SPONSORS	2,399.35
LECTURE SPONSORS	1,714.66
EU FUNDS	698.81
ACTIVITIES	4,203.68
St Apollonia	1,365.00
Xmas 08 Sponsors	2,563.68
Xmas 08 Raffle	275.00
OTHERS	11.47
BANK INTEREST (taxed at source)	337.94
SUB-TOTAL	**14,664.53**

EXPENSES 2008

FEDERATION FEES	995.44
MEMBERSHIP FEES	2,069.52
DENTAL PROBE	1,583.21
POSTAGE & STATIONERY	384.46
ACTIVITIES	3,557.35
St Apollonia	1,516.15
Smile for Albania	60.00
Xmas 08 Hampers	460.00
Xmas 08 Lunch	1,500.00
Others	21.20
BANK TAX	50.69
SUB-TOTAL	**8,640.67**

NON-RECURRING EXPENSES

EU DESK MEMBER TRIPS	981.65
INTERNET SUBSCRIPTION	133.86
LECTURES	1,461.69
catering	1,036.84
drinks	78.35
gifts	306.50
waiters	40.00
OTHERS	50.00
SUB-TOTAL	**2,627.20**

TOTAL EXPENSES	11,267.87
BBF (2007)	4,846.07
INCOME (2008)	14,664.53
	19,510.60
EXPENSES (2008)	11,267.87
BALANCE	**8,242.73**

REPORT OF INTERNATIONAL LIASION OFFICER – AGM JAN 2009

The role of international liaison officer principally involves maintaining good contacts with FDI, ERO and CED (Council of European Dentists) and in providing constant update from the DLC Brussels office. I will proceed to provide you with information on EU developments that are of interest to the dental profession and concerning health policy

Meetings attended

a. CED meeting Slovenia May 2008

b. CED meeting Brussels November 2008

c. FDI Congress Stockholm October 2008 (personally funded)

EU UPDATE ON TOPICS RELEVANT FOR DENTAL ASSOCIATION

1. CED ACTION ON PATIENT SAFETY: RESOLUTION, CONSULTATION, EUNETPAS INVOLVEMENT

The CED adopted a resolution on patient safety at its spring General Meeting in Portorož, Slovenia.

It emphasises the commitment of the dental profession to improving patient safety; contains examples of activities undertaken already by the profession to achieve this; and includes recommendations of the CED to its member organisations on how to further improve safety in the field of dental care.

It has been sent to all relevant EU decision- makers, and CED members will disseminate the resolution at national level

A consultation with the commission gave some opportunity for the CED to stress the importance of the Commission taking into account the various settings in which healthcare is delivered, including the dental care setting, and not just the hospital setting, which is very often the focus of patient safety initiatives.

The preliminary results of a survey of EU countries show that the three most frequent types of adverse event, in the experience of the 185 respondents, are medication-related events, diagnosis errors and communication problems.

EUNetPaS: The European Network for Patient Safety project (EUNetPaS) was launched in February, having received funding under the Commission's Public Health Programme. It will be a single integrated umbrella network with the objective of supporting Member States and facilitating cooperation in the field of patient safety at EU level. It is no longer possible for the CED to be officially involved in the work, but it is possible for CED members to join the national platforms that exist in each country

2. TOOTH WHITENING COMMISSION PROPOSES STRATEGY TO KEEP ALMOST ALL TOOTH-WHITENING PRODUCTS WITHIN CONTROL OF DENTIST

The Commission has proposed a strategy to implement the opinion of the Scientific Committee on Consumer Products, which will mean that tooth-whitening products (TWPs) containing more than 0.1% H_2O_2 will fall within the control of the dentist. The SCCP's opinion, published in January, identified risks connected with the use of TWPs with more than 0.1% H_2O_2, and indicated that direct consumer access to these products should be limited.

The Commission presented a strategy to implement this opinion to Member State representatives and stakeholders, including the CED which proposes amendments to the Cosmetics Directive to ensure that all TWPs with more than 6% H_2O_2 be used only by dentists and that TWPs with 0.1-6% H_2O_2 be available only through dentists, with the option of the dentist supplying the patient with material for use at home.

Continues on next page

REPORT OF INTERNATIONAL LIASION OFFICER – AGM JAN 2009

Continues from previous page

This is a very positive step in the CED's campaign to ensure the dentist's supervision of products, which, if used without proper clinical examination and precautions, could be dangerous. If the proposals become law, Member States would be obliged to prevent other people, such as hairdressers, from using TWPs.

3. AMALGAM SCIENTIFIC COMMITTEE OPINIONS ON AMALGAM AND CED COOPERATION WITH COMMISSION

On 8 May 2008, two Scientific Committees published their final reports on the safety of amalgam. The opinions are very positive from the CED's perspective, and are very much in line with the CED's policy that amalgam is an effective restorative material and should remain part of the dentist's armoury to best meet the needs of patients.

In an attempt to communicate these opinions better to the wider public, the Commission has published an easy-to-read version of the two opinions. The Commission has formally asked the CED to help them to communicate the opinions to dentists throughout Europe. The CED has also agreed to look into ways of using the easy-to-read version to better inform patients in respect of their treatment options. The CED has replied to the Commission request for help in disseminating the opinions and has offered its expertise in future dental-related work of the Scientific Committees.

POST-QUALIFICATION EDUCATION AND TRAINING

4. VOCATIONAL TRAINING

About half of all EU/EEA countries insist on further post-qualification vocational training (VT) for their new graduates, before they are given full registration, or entitlement to independent practice, or entitlement to participation in the state oral healthcare system as independent clinicians. In some countries this vocational training may be voluntary.

Mandatory vocational training was reported in 2008 in:

Country	No of months
Belgium	12
Czech Republic*	36
Denmark	12
Finland	12
Germany	24
Latvia	24
Lithuania	12
Poland	12
Slovakia*	36
Slovenia	12
United Kingdom	12

* Mandatory 36 months VT ends in the Czech Republic and Slovakia in 2009

5. CONTINUING EDUCATION AND TRAINING

Every EU and EEA country has at least an ethical obligation for dentists to undertake continuing professional education of some kind – and some arrangements to deliver this. In 2004 only 10 countries had a mandatory requirement to undertake a minimum amount of such training. By 2008, this had increased to 17 countries with 3 more introducing the requirement by 2010 and 2 others actively discussing it. So, by the end of the decade it is expected that the majority of countries will have a mandatory continuing education requirement for their dentists. *(see table below)*

Mandatory CPE	Amount
Austria	Not mandatory
Belgium	Mandatory, 60 hours over 6 years, a minimum of 6 hours in any year
Bulgaria***	Mandatory, 30 hours in 3 years
Croatia***	Mandatory, 7 hours per year
Cyprus	Not mandatory
Czech Republic**	Mandatory, with Certificates of Proficiency (leads to higher payments from health system)
Denmark**	Mandatory from January 2009 – 25 hours annually
Estonia	Not mandatory
France***	Mandatory, at least 800 units (hours) in 5 years, with a minimum of 150 per year
Finland	Not mandatory
Germany**	Mandatory with recertification every 5 years
Greece**	Proposals for mandatory being discussed in 2008
Hungary	Mandatory, 250 hours over 5 years
Iceland	Voluntary scheme only (20 hours a year)
Ireland**	Mandatory from January 2010
Italy***	Mandatory with at least 150 units (hours) within a 3-year period (2008-10), including a minimum of 30 & a maximum of 70 each year.
Latvia	Mandatory, 250 hours over 5 years
Lithuania	Mandatory, 120 hours over 5 years
Luxembourg**	Mandatory – but dentist decides what he needs
Malta	Not mandatory (under discussion)
Netherlands	Not mandatory
Norway	Ethical obligation only
Poland***	Mandatory, 200 points (hours) needed in 4-years
Portugal***	Expected to be mandatory by January 2009 – requirements not yet determined
Romania	Mandatory, 200 hours over 5 years
Slovakia	Mandatory, 250 credits (hours) over 5 years
Slovenia	Mandatory, 75 points/hours (about 10 courses) per 7 years
Spain	Not mandatory
Sweden	Not mandatory
Switzerland	Mandatory, 10 days per year
United Kingdom	Mandatory, 75 hours of formal courses + 175 hours informal, over 5 years – and slightly more for specialists.

Continues on page 9


Fixodent®
Satisfaction Guaranteed OR YOUR MONEY BACK!
Fixodent DENTURE ADHESIVE CREAM
EXTRA STRONG HOLD - ALL DAY LONG
Neutral Taste
Fixodent DENTURE ADHESIVE CREAM
Fresh
Original
Strong hold, all day long

REPORT OF INTERNATIONAL LIASION OFFICER – AGM JAN 2009

Continues from page 6

6. SPECIALIST TRAINING

Specialists, as defined in the EU Directives, are recognised in most countries of the EU/EEA. Orthodontics and Oral Surgery (or Oral Maxillo-facial Surgery), are the two specialties which are usually recognised, but not in Austria, Luxembourg and Spain, where there is no recognition of specialists. However, in Austria, Belgium, France and Spain, Oral Maxillo-facial Surgery is recognised as a medical specialty (only), under the EU Medical Directives.

Many other specialties have de facto recognition in various ways in different countries (for example by formal training programmes), but these may not be formally recognised under the Dental Directives. There is no specialist training in Austria, Cyprus, Iceland, Luxembourg, Malta and Spain.

7. INDEMNITY INSURANCE

In all EU/EEA countries, professional Indemnity Insurance, to protect dentists against having to pay damages and legal costs should a claim arise against them is available and recommended. However, in 21 countries indemnity insurance is mandatory:

Austria
Belgium
Bulgaria
Czech Republic
Denmark
Finland
France
Germany
Hungary
Iceland
Ireland
Latvia
Lithuania
Luxembourg
Norway
Poland
Romania
Slovakia
Spain
Sweden
United Kingdom

This insurance is included in membership fees of the Danish Dental Association.

Ten countries reported that the mandatory or non-mandatory indemnity insurance may extend to the dentist working in another country – although this would usually be an adjacent country for working near the border or to any country but for a limited period (usually measured in months).

Indemnity Insurance may extend for work in another country

Croatia
France
Germany
Greece
Ireland
Luxembourg
Netherlands
Slovenia
Spain
United Kingdom

Many thanks for the constant support in my work as EU/International Liaison officer and if any member needs further clarification or advice on EU matters relevant to dentistry please feel free to contact me

AUDREY CAMILLERI
EU/International Liaison officer
Iro@dam.com.mt

Remembering Professor Egidio Lapira (1897—1970)

By Dr Charles J. Boffa, B.Ch.D., B. Pharm., F.I.C.D., Ph.D.

From time to time I have been asked by colleagues to write about the qualities of the late Professor E. Lapira, who served our profession with honour and devotion for so many years.

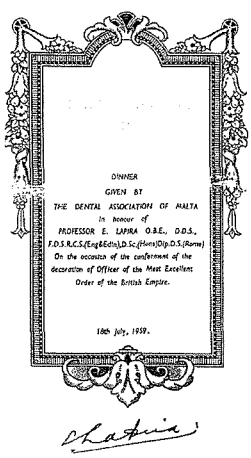
He was an extrovert, a good organiser, a very good lecturer, generous and sincere. All who knew him were struck by the genuine warmth of his fine character.

Professor Lapira was awarded a diploma in Dental Surgery by the Royal University of Malta in 1922. He was appointed the first ever dental surgeon in government service around 1932, with a salary of 70 pounds sterling, on par with that of surgeons and physicians in the Medical and Health Department. He continued his postgraduate studies in Rome, qualifying Diploma D.S. in 1932. In 1948 he was elected F.D.S.R.C.S. (U.K.) and in 1959 F.I.C.D. Later on the Royal University of Malta conferred on him the D.Sc.(Hons).

He was responsible for the setting up of the first B.Ch.D. course modelled on the English pattern and which was recognised almost immediately by the British Dental Council.

Incidentally I was among the first group of students (1948-54). Previously the Royal University of Malta had been granting a Diploma in Dental Surgery (D.D.S.).

During the Second World War Professor Lapira was involved in the treatment of casualties suffering from jaw and dental injuries. On his initiative four sub-dental clinics were set up in various parts of Malta under the auspices of the Medical and Health Department.


DINNER
GIVEN BY
THE DENTAL ASSOCIATION OF MALTA
In honour of
PROFESSOR E. LAPIRA O.B.E., D.D.S.,
F.D.S.R.C.S.(Eng&Edin),D.Sc.(Hons)Dip.D.S.(Rome)
On the occasion of the conferment of the
decoration of Officer of the Most Excellent
Order of the British Empire.

16th July, 1959.

In 1954 Professor Lapira was awarded the O.B.E. (Officer of the Order of the British Empire) in recognition of his outstanding achievements over the years. On this occasion a dinner was given in his honour by the Dental Association of Malta.

Throughout his professional life Professor Lapira was held in high esteem abroad and in Malta by colleagues and patients alike. His directness and foresight made him a very good administrator and achieved results in putting dentistry in Malta on a sound footing. He is rightly regarded as the father of Maltese dentistry.

The Sybron Endo Lecture by Professor Gambarini

– A Cherubino Event at Corinthia San Gorg Hotel

The salient points from the lecture. By Dr David Muscat

1. The BIOFILM in the apical 2-3mm is 1000 times more resistant to chemical agents than planktonic bacteria and so the BIOFILM must be disgregated by instrumentation. The canal walls must be physically cleaned in the last 2-3mm to remove it so the area must be enlarged. Tip size and taper must be increased.

2. A file can also be used to help irrigate the canal with NaoCl.

3. EDTA must be used only at the end of cleaning, after NaOCl.

4. The use of EDTA as a 17% high concentration, at the end is much better than just using NAOCl.

5. SMEARCLEAR has both EDTA and NAOCl. There is a surfactant inside also. This also makes a slight difference to the cleaning efficiency.

6. First shape your canals, then clean.

7. NaOCL 6% with a tensioactive agent is better than just NaOCl. CHLORXTRA has a surfactant inside.

8. The TWISTED FILES are in packs of 3 sizes and are available in 5 shapes. They have R phase heat technology.
   - They are twisted , not ground.
   - They have advanced surface treatment. Only 3 NiiTi rotary files are used. Either individual, large or small sizes.

9. The K3 is a triple fluted system which cuts quickly and safely and minimises over-enlargement of the canal.

   The files have a:
   - Variable core diameter
   - Increased helical angle
   - Safe ended tip

10. REALSEAL (RESILON) ADHERES MUCH BETTER TO THE DENTINE AND ALSO TO GP ITSELF.

    Realseal is leak-resistant and strengthens the root. It contains calcium hydroxide, bioactive glass and radiopaque filler.

11. A new type of synthetic GP -Resilon B is being made which can bind more to the sealer and has a more controlled nature and performance.

12. Clinicians who use a glide path up to size 20 report a much lower rate of deformation.

13. During instrumentation use NaOCl, but after the shaping procedures have been completed one can use Passive Ultrasonic irrigation followed by EDTA. The SYBRON MINI ENDO Piezo unit can be used.

14. The ELEMENTS OBTURATION UNIT provides a continuous wave of condensation. It has a dual function:
    a. SYSTEM B condensation heated plugger. Downpack warm vertical condensation.

    b. EXTRUDER heated backfill

15. The TIP SNIP is a 'guilliotine' which flush cuts gp to the apex required.

16. K3 GP is either feather tipped or an ISO tip.

17. BUCHANAN handpluggers are used in any obturation system. Heat pluggers have a root-canal shape.

18. SLICK GEL ES micro dose polytubes contain urea peroxide and EDTA.

19. The Dr Buchanan LA AXXESS line angle instruments have non-cutting parabolic tips.

20. The ENDOTOUCH TC is a cordless motor with 5 torque settings and 9 speed options and a quick-change battery.

21. PEERLESS POSTS are fibre-reinforced radiopaque composite posts.

22. The M4 SAFETY HANDPIECE PROVIDES OSCILLATING MOVEMENT TO GLIDE ENDO INSTRUMENTS THROUGH THE CANAL.

THE TENETS

By Dr David Muscat

Next time you carry out a surgical procedure ,think of Dr William Stewart Halstead (1852-1922), the most important, innovative and influential American surgeon of all time.

His principles are the basis of modern surgical craftsmanship, and his are the gold standards in surgery. He was the father of American modern surgery. His principles still stand today in oral surgery as in any other surgery.

The tenets are as follows:
1. Gentle tissue handling
2. Aseptic technique
3. Sharp anatomical dissection of tissues
4. Careful haemostasis. Use fine sutures
5. Obliterate dead space in a wound
6. Avoid tension
7. Rest

THE KAVO PROPHYFLEX – AN APPRAISAL

By Dr David Muscat

After spending 20 years 'chasing curry and nicotine stains out of contact points', I decided to invest in a mouth stain power blaster.

The Prophyflex has a powder container attached to a motor which fits into a Kavo multiflex. The powder is aptly called 'prophy pearls'. Alternatively one may use an orange- flavoured powder.

The cannula tip is held 3-5 mm away from the tooth surface at 10-60 degrees to the tooth with a rolling effect.

The prophyflex has to be used with caution as the grains may get into the eyes and damage the oral mucosa. Safety goggles have to be worn by both patient and operator and vaseline applied to the lips of the patient.

A drawback is that the material will end up in your amalgam separator as it does not dissolve in water and thus the separator-container will have to be changed more frequently.

The jet must also be kept away from deep periodontal pockets or one may end up with an emphysema. Also caution with margins of crowns and fillings and exposed roots. Patients are advised not to eat or drink anything which may stain such as coffee, tea , fruit, juices etc for several hours after as the CUTICULA DENTIS on the teeth would have been removed and the tooth will have no protection.

The calcium carbonate powder blast is good for those deep smokers' stains and deep stains in hypoplastic teeth and in amelogenesis imperfecta It can be used as an adjunct to tooth whitening in those stubborn difficult cases.

The powder must not be inhaled .One must work with caution.(bil-galbu)
I must admit I expected a lot more VROOM from this but we are dealing with the mouth I suppose and it is just a fine jet of calcium carbonate.. Using a large volume of water affords a greater cleaning efficiency and less dust.

The DAM St Apollonia Quiz

Tas-Silg, Marsaxlokk 2009

1. In which Century did St Apollonia live?
2. In which city and Country did she live?
3. What was the name of the Emperor who ruled the country she lived in?
4. What is the REAL exact date when St Apollonia is celebrated?
5. In which city is "Piazza Sant' Apollonia?"
6. In the painting depicting St Apollonia, what is unusual about the tooth that she is holding with pincers?
7. Why did she have her teeth smashed?
8. How did she die?
9. There is a (now deceased) dentist whose wife was called Apollonia. Who was the Maltese dentist?
10. What was there originally on the tas-Silg archaelogical site?

Answers:

1. *3rd century AD*
2. *Alexandria in Egypt*
3. *Emperor Philip*
4. *9th February*
5. *Rome*
6. *Gold molar*
7. *She refused to relinquish her faith*
8. *She jumped into a fire willingly – burnt at the stake*
9. *Dr Tony Demajo*
10. *A chapel for sailors*

OF HALSTEAD

Dr Halstead also was responsible for:

1. Introducing the concept of a house officer and residency

2. Introducing a hospital chart taking the patient's temperature, pulse and respirations

3. Performing one of the very first gall bladder operations-and this was on his own mother at 2am on the kitchen table as an emergency

4. Carrying out one of the very first blood transfusions. This was on his own sister. She had just had a baby and she had post-partum bleeding. He withdrew his own blood in a syringe and transfused it into his own sister. He then operated on her to save her life.

5. Introducing the surgical rubber glove after the surgical nurse – his later wife – developed dermatitis from chemicals used for disinfection

6. Developing the nerve block and other forms of local anaesthesia

7. Experimenting with cocaine as an analgesic with his medical colleagues, most of whom unfortunately all died due to this.

   He then became a cocaine addict, and later a morphine addict when the latter was used to wean him off cocaine.

8. Performing the first radical mastectomy for breast cancer.

9. Advances in thyroid, biliary tree, intestinal and arterial aneurysm surgeries.

10. Helping women get equal opportunities to study medicine and also established prerequisites for medical school admissions.

11. HALSTEAD'S LAW-transplanted tissue will grow only if there is a lack of that tissue in the host

12. HALSTEAD'S SUTURE- a mattress suture for wounds that produced less scarring.

As closing trivia, he was also an astronomer and gardener and two of his dogs were called N ip and Tuck!

MODERN CROWN TECHNIQUES

By Dr David Muscat

A. NON PRECIOUS METAL BONDED SYSTEMS

- May cause corrosion, sensitivity
- Problems with soldered joints and biocompatibility.

B. PRECIOUS METAL SYSTEMS

1. CAPTEK
- Capillary technology
- A precious metal substructure with a good fit, strength and excellent bio-compatibility.
- Minimal opaque is required to mask the gold colour.
- 1mm prep enough for optimal aesthetics.

2. GRAMM-GES
- 99.96 per cent 24 carat gold.
- Electroforming process
- Minimal prep (0.9-1.2mm) due to GES (0.2mm) substructure
- Accurate shade reproduction

3. DUCERA GOLD
- Combination of 73% high gold alloy from Degussa and hydrothermal dental ceramic from Ducera.
- Very biocompatible
- Inlays, onlays, crowns, milling, bridges, precision attachments.
- Implant superstructure.
- (0.9-1.2mm) prep. for crown margins.

C. POLYGLASS

GC GRADIA – light cured indirect restoration with microfine ceramic/ prepolymer filler with a urethane dimethacrylate matrix.
- High strength, wear resistance, superior polishability.
- Very biocompatible
- For inlays always a minimum thickness of 2mm in any direction.

D. ALL-CERAMIC SYSTEMS

1. EMPRESS
- Leucite reinforced ceramic powder in glass matrix sintered and pressed into ingots.
- Used for inlays, onlays, crowns, veneers.
- Crowns 1mm margin

2. EMPRESS 11
- Stronger. Lithium disilicate.
- 1-2 mm prep for crown margin
- 3 Unit bridges up to second premolar only.
- Either surface stained or by layering technique.

3. PROCERA
- Alumina oxide densely sintered core structure.
- 1mm prep for crown margins.

4. INCERAM
- Glass infiltrated alumina oxide substructure
- Furnace procedure takes overnight
- Strong coping with conventional ceramic on top.

Tips on Composites and Crowns

By Dr David Muscat

1. Long term temporary crown and bridges are best made out of a bis-acryl type material. These are auto-cure composite resin-based materials which are more aesthetic and do not wear or stain so easily.

2. Aim for a supra-gingival margin for a restoration.

3. Long-term survival of the tooth takes precedence over the survival of the restoration.

4. One should spend as long finishing and polishing a composite as one spends placing it.

5. Composite veneers can be finished to a knife-edge and altered and repaired as necessary as opposed to ceramic veneers.

6. When taking a shade, look for 8 seconds and then look at a blue surface.

7. During a one-stage impression technique impression voids are often created on the distal aspects of the maxillary teeth due to the use of too much light body material which gravity then pulls away and the slumped material is then pushed distally as the heavy bodied is inserted. So either:
   a. use air to disperse wash in a thin layer
   b. use 2 stage putty-wash technique
   c. use close fitting tray

8. A tray needs to be rigid to prevent putty from distorting it particularly during a single stage putty-wash technique.

9. However a tray must not be too tight a fit. If there are deep undercuts or loose teeth or bridges, something has to 'give' and the impression will distort when removing it. A rigid plastic tray would be better suited here.

10. Impressions which are 'stuck in the mouth' are a combination of a rigid material in a rigid close-fitting tray.

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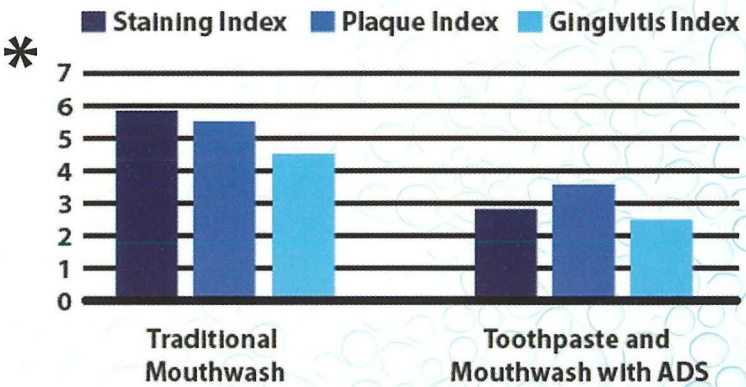

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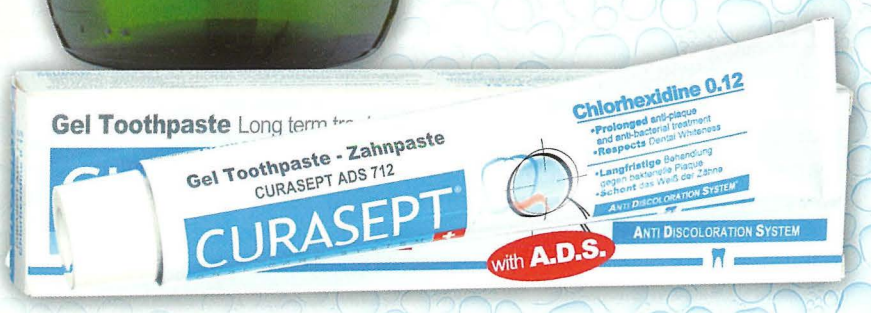
Chlorhexidine used in combination with any conventional toothpaste or any other non-Gel toothpaste will inhibit the activity of the Chlorhexidine, making the treatment ineffective.



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*Comparative evaluation of the ADS System in periodontal Patients
L. Bellia, C. Seria, M. Amato, A. Liano - University of Naples.

FACIAL FILLERS AND FREEZERS

By Dr C. Corney MBBS, DMRD, FRCR
Medical Practitioner

RESTYLANE contains synthetic hyaluronic acid which in humans leads to collagen and elastin formation in skin. This in turn attracts water into the skin keeping it smooth and plump.

It is useful for wrinkles in the face except under the eyes within the orbital cavity for risk of swelling. Restylane comes in three viscosities; the thinnest for very fine lines or wrinkles and the thickest for broad wrinkles or folds (eg naso-labial folds) or large depressions or dents.

BOTOX hereinafter called BTX was useful for upper face wrinkles (forehead, frown and crow's feet) as it was quicker and also side effects were rare. In the lower face BTX is not so reliable and predictable as there is not much leeway between minimum therapeutic dose and overdose producing side effects so fillers continue to be used.

The only area of the face which cannot be touched with BTX or Restylane is the skin below the eyes due to risk of swelling or eye muscle paralysis. I used to use Retinova cream whose mildly abrasive effect scraped off the skin containing a small wrinkle.

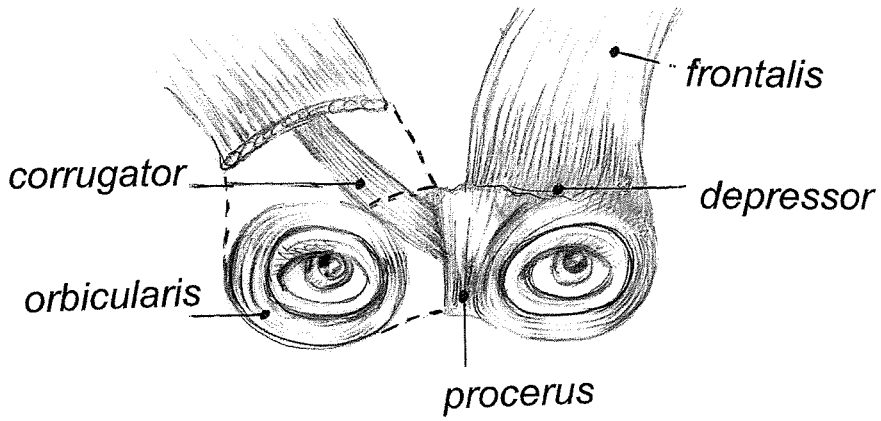
However Retinova is no longer produced so I now use Leorex which is mildly abrasive and hydrating which pumps up the skin here helping to unfold the wrinkle also.

Contraindications are pregnancy, allergic history and adjacent skin disease.

Patients are advised not to sunbathe after the injection due to the risk of sensitisation. Minimal side effects do not last longer than a few days.

UPPER FACE LINES

Aims BTX CORRECTION;The wrinkle in the upper face is due to the prolonged contraction of the facial muscles(eg screwing up the face in bright sunlight)



Inject minimum amount to relax the muscle of the upper face without causing abnormal movement and positioning of major facial structures such as the eyebrow due to the unopposed pull of the antagonist muscles.

Such a reaction indicates that an overdose of BTX has been given, often precipitated by the patient requesting the operator to flood the face with BTX.

Before BTX therapy is performed an aesthetic assessment of the depth of each wrinkle should be made. If stretching the skin around the wrinkle makes it disappear then BTX will be successful, but if it persists then BTX will fail-so application of a dermal filler would be appropriate.

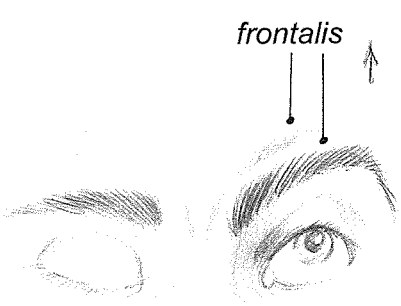
THE MUSCLES OF THE UPPER FACE

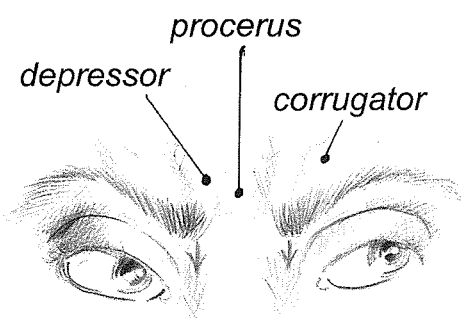
Every muscle has an action known as "agonist" but nearby there is a muscle which has an opposite action known as "antagonist". So if one muscle is relaxed completely using too much BTX then its antagonist, having unopposed power, will undergo excessive movement causing an undesirable effect (eg. movement of an eyebrow).

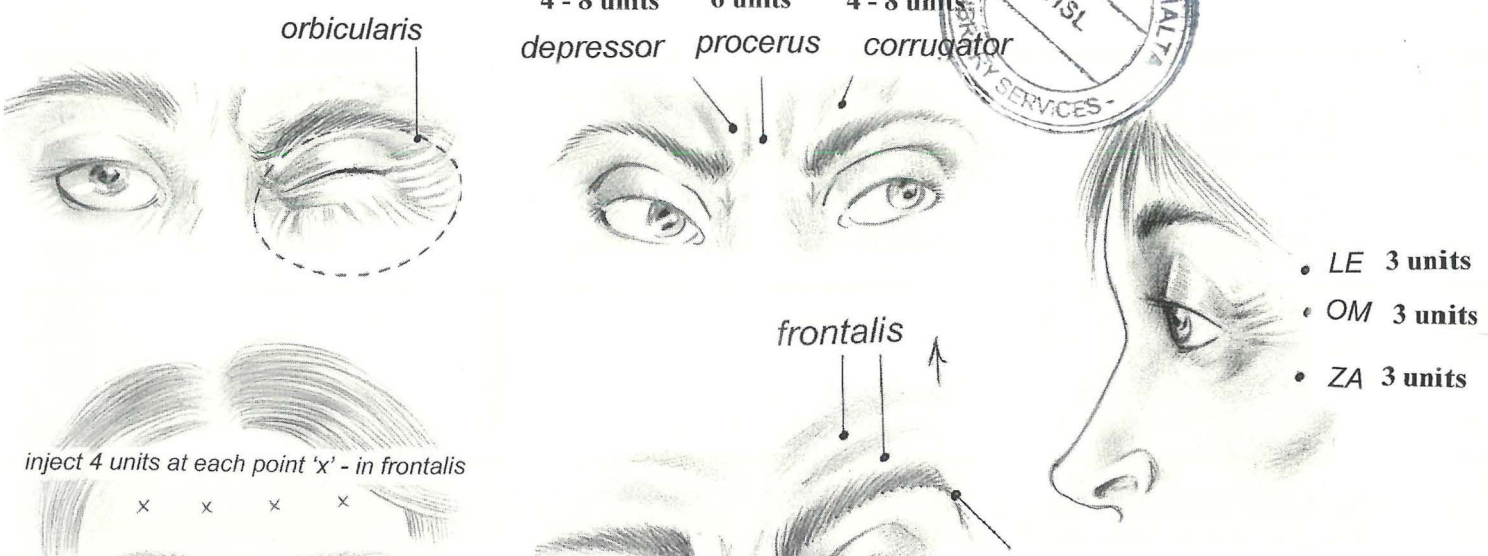
The muscles which cause BROW DEPRESSION are:

- Corrugator Supercilii
- Depressor Supercilii
- Procerus
- Orbicularis oculii

The muscle causing BROW ELEVATION is Frontalis.
So if too much BTX is injected into Frontalis then the brow is depressed indicating that the agonist movement is replaced by the antagonist one.
These muscles are demonstrated in the drawings by Susan Waitt. My grateful thanks for her technical help.







BOTOX AND YOUR PATIENTS – HOW?

Dr Daniel Cassar Darien DDS (Ath), MJDF RCS (Eng)

Who on earth would have thought that one day patients would be having regular injections of Botilinum toxin (BTX) to target facial wrinkles.

Barely fifteen years ago the concept would have been hard to digest.

Now more than half of London dental surgeries are offering the treatment which is the most commonly performed non-surgical cosmetic procedure for facial rejuvenation.

HOW DOES IT ACTUALLY WORK?

BTX is delivered by careful and precise intra-muscular injection to reduce or eliminate functional muscle activity, which is responsible for certain facial lines or wrinkles.

The result is dose and location specific and is fully reversible due to the mechanism of action, which is the blockage of neuromuscular transmission by inhibition of ACTH.

Reversal occurs due to axonal sprouting and continued muscular contraction.

HISTORY OF USE

It was purely by chance that in 1990, a Canadian ophthalmologist found out that during treatment of a patient with blepharospasm, glabellar frown lines diminished. This led to research into the elimination of facial lines utilizing carefully targeted BTX injections.

In dentistry, surgeons administering BTX to weaken masseter muscles in bruxists were surprised to notice softening of wrinkles around the TMJ area.

Patients started clamoring for more and more of their BTX fix and the rest is ,as they say, history.

APPLIED FACIAL ANATOMY

A detailed knowledge of facial anatomy, in particular the facial musculature, is essential.

Indeed the key to a successful result is appreciating the dynamics of agonistic and antagonistic muscle groups.

It is important to realize that there are many subtle variations of facial muscle anatomy and the patient must be well examined for various asymmetries and inconsistencies which might present themselves. Dental surgeons, in particular, are well prepared to administer BTX because of their intimate knowledge of facial anatomy, strong sense of facial aesthetics and their ease at constant targeting of delicate anatomical structures with injections.

Case Report

This patient, a 62 year old Caucasian woman, had previously undergone cosmetic dental treatment for her discoloured teeth. (Figure 1).

Figure 1

She pronounced satisfaction with the dental treatment but on examining the result in the mirror bemoaned her wrinkles around her lips. She had recently quit a forty year two packet daily cigarette habit.

She was treated by the administration of 8 units of Botox (Allergan), evenly spaced in the area just above the vermillion border.

The onset of action of BTX is between 24- 72 hours, with the peak being noted around the 7 day mark after administration.

She was therefore re examined after two weeks and reported no interference with her speech or any other undesirable effect.

The peri oral area shows a marked smoothening and relaxation of the dermal area (Figure 2). The patient was extremely pleased with her new appearance and was scheduled for re examination and possible further administration in 4 months time.

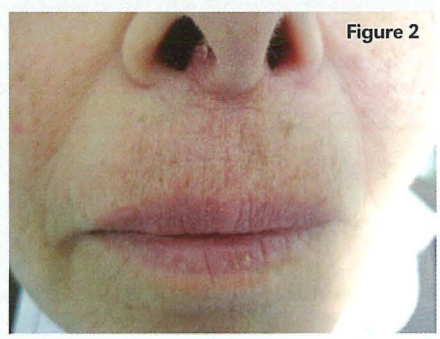


Figure 2

Peri oral lines are caused by excessive animation of the orbicularis ori muscle and are more common in smokers.

Physicians are generally hesitant to administer BTX in this area as they fear problems with speech, however with careful superficial administration, usage of low dosage (2-4 units) per quadrant around the mouth, can relax the underlying muscles and smooth out lines, without affecting speech.

It is possible and indeed sometimes desirable to combine BTX treatment with the usage of a dermal filler. Simultaneous use results in a synergistic and enhanced treatment result, especially when lip atrophy is present.

Replacement of Missing Upper Central Incisor with Implant-retained Crown

By Dr Antoine Camilleri BChd

A 33 year old Maltese woman presented with a painful upper left central incisor, following a headlong fall while climbing up the stairs. Examination revealed an incisor very painful to touch and with grade 1 mobility.

Radiographic examination showed a midline root fracture. She was in good health with no relevant past medical history, fair oral hygiene and a non smoker.

Considering the poor prognosis it was decided to extract the incisor rather than attempt restoration which could further jeopardize the alveolar bone integrity.

An immediate acrylic partial denture was fabricated and careful extraction and root elevation under local anaesthetic carried out as atraumatically as possible.

The plan was to insert an implant after about 1.5 months of socket healing to reap the benefits of early implantation ie maximum soft tissue generation and minimum bone loss.

After study radiographs and split study casts were prepared for pre-op planning, a Strauman SLA surface 4.1mm diameter RN SP 12 mm long implant was chosen. Under LA a two sided full mucoperiosteal flap was elevated for maximum visual access, and the prosthetically-driven implant inserted. Care was taken that the implant be inserted within the mesiodistal, labiopalatal and coronoapical 'comfort zones'.

Bone augmentation of the buccal plate was still judged to be necessary, and Bio Oss and double layer Bio Gide technique used. Four 4.0 monofilament sutures completed the surgical session and submerged healing allowed to happen. The partial denture was modified to prevent undue pressure on the operation site.

Two months later partial exposure of the implant had occurred. The cover screw was replaced by a beveled healing cap to begin the tissue conditioning process.

No precious gingival issue was removed. Three months post-op the impression for the temporary crown was made, and a week later the temporary abutment and acrylic crown were inserted.

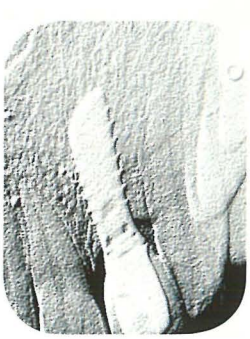
At three weekly intervals the acrylic crown was removed and modified incrementally with composite resin at the chairside to continue the soft tissue conditioning of the gingival around the implant.

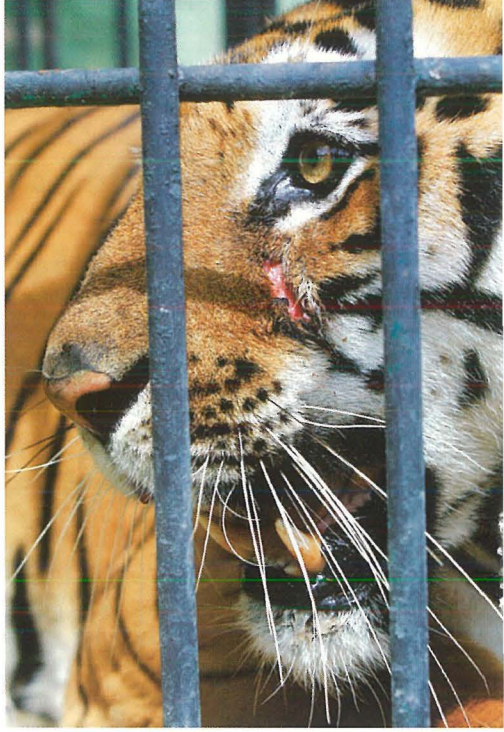
After four months of tissue conditioning the transition zone was mature ie the gingival contour of the temporary crown had become stabilized and very similar to that of the adjacent natural central incisor.

The shade taking and final impression using a screw cylinder with self curing flowable Duralay resin to make a custom record of the transition zone, was done. Laboratory fabrication and ten days later the permanent porcelain bonded to metal crown was screwed onto its abutment.

Oral hygiene instructions were reinforced and the happy patient advised about regular monitoring visits. A year and a half after surgery the bone and soft tissue level are stable and healthy.

I would like to thank Mr Victor Galea and Mr Vincenzo Catalano for their laboratory work and services.





Tiger Treatment

In July 2007 Paul Cassar and Lisa Milella who are volunteer dentists for the charity International Animal Rescue (www.iar.org.uk) were asked to attend to a Royal Bengal Tiger in distress.

Dr Cassar is a human dentist who is usually is seen in his Chichester surgery in the UK while Lisa Milella is a veterinary dental specialist, and works in her dedicated animal only dental clinic in Byefleet London.

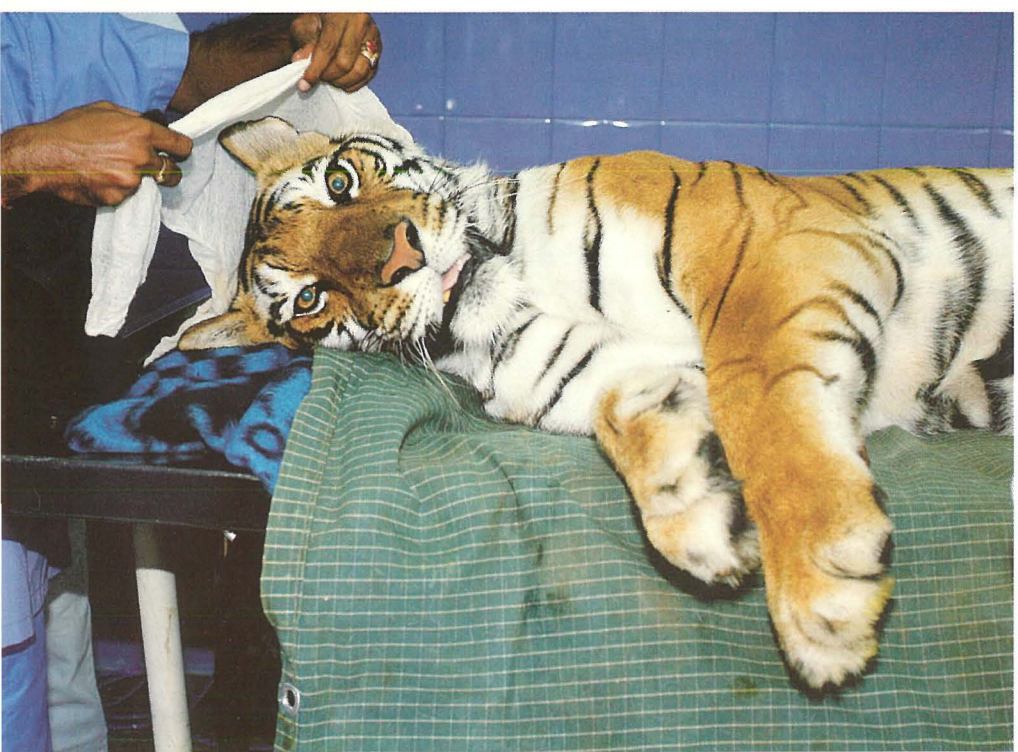
Paul and Lisa were asked by our sanctuary vet Dr Arun Raje to attend to a Royal Bengal Tiger called Mohan because Mohan was in obvious distress from a facial abscess which Dr Arun suspected was associated with a badly fractured upper canine. The beast was constantly pawing its face and was in distress. Dr Arun and our other sanctuary vets have been trained by Paul and Lisa to recognize and treat common dental problems in the sanctuary bears.

Dr Arun is one of the team of three IAR Wildlife S0S sanctuary vets who help us to look after the 500 ex dancing bears we now keep in our bear sanctuaries. The tiger sanctuary is situated only a mile or so from our Bannergatta bear sanctuary

A few years ago the Indian government banned the keeping of Circus tigers and tigers in private ownership. Most of these tigers were then placed in government sanctuaries to be cared for in a more tranquil environment rather than in performing circuses. Unlike our dancing bears which we treat regularly and have had human contact throughout their lives the tigers presented with unique problems in their management not least that they are a top carnivore and although fraught with problems anyway recovery has to be in a safe and controlled area.

Mohan is an eight year old male Royal Bengal tiger weighing approximately 300kg Maneka is a female Royal Bengal tiger and weighs 230kg.

Mohan presented with an obvious facial defect on his upper left side which was associated with a broken down fractured upper canine. This tooth was not savable and so an extraction was planned.



Once the infected root was removed complete wound closure was achieved and the facial defect was debrided and sutured. At review 4 weeks post op the socket was seen to be healing well and the facial defect had healed.

Maneka was a smaller female Royal Bengal Tiger and she too presented with a large ventral mandibular wound originating from a grossly infected and broken down lower left canine.

Once again an extraction was planned and the tooth removed as always the socket was closed completely and the mandibular defect surgically cleaned debrided and sutured. Again at review after 4 weeks the wound was seen to be healing very well.

Both tigers were first sedated by injection while in a crush cage (that is a cage whose sides can be drawn in to restrict the animals movement.) Sedation was carried out using ketamine once the animal arrived in the operating room then after ensuring adequate sedation was present the tiger was intubated and maintained on Halothane/oxygen gaseous an aesthetic.

After the 2 and a half hour procedure the animal was re sedated prior to ex-tubating so that the animal could then be transferred safely back to its holding recovery area / cage.

The Spring Cantilever

By Dr Edward Demarco B.Ch.D., MFGDP (UK)

Ever since the introduction and favourable outcomes of dental implants, the use of spring cantilevers has diminished considerably.

However, not all patients can afford implants and thus, this treatment options should be discussed with the patient at the treatment planning stage. This is a case of a 37-year old lady who presented a yellow discolouration of the upper central incisor.

The upper right central incisor gave a negative result with ethylchloride and on examination of the periapical radiograph, the root canal was completely sclerosed.

The patient was referred for a consultation regarding endodontic treatment or apicectomy, but was told that the only treatment possible was endodontic surgery with a guarded prognosis as conventional root treatment was not possible.

After an episode of severe pain from the central incisor, the patient returned to my clinic requesting removal of the tooth.

Before removal of the incisor, the available treatment options were discussed with the patient, namely the placing of an implant, a spring cantilever attached to the upper right canine (had a distal restoration) or a removable prostheses.

As can be seen from fig. 1, the patient presented with bimaxillary proclination and relatively spaced anterior teeth with a midline diastema.

As such, conventional fixed bridgework was not feasible as the prosthetic teeth would have resulted very wide, giving an unnatural smile with loss of symmetry.

Undoubtedly, the best treatment option was placing an implant with/without augmentation.

However, the patient could not afford implantology and would not tolerate a removable prostheses. We thus concluded to provide a spring cantilever attached to the upper right canine.

Spring cantilevers are fixed cantilever bridges with the abutment being placed at a distance from the pontic and bound together by a metal arm that contacts the hard palate. It is thus partly supported by soft tissue.

First molars are more commonly used as abutments, but since the first molar had no restorations, unlike the canine, the latter was used. The spring cantilever is shown on the cast model in fig. 2.

Notice the amount of spacing between the anterior teeth, having about 1 mm spacing both mesially and distally.

In a conventional bridge, the size of the central teeth would have been wider to accommodate the spacing.

Fig. 3 shows the post-operative view. There is some gingival recession following tooth extraction with the resulting pontic being slightly longer, but that was acceptable to the patient.

This case clearly shows the importance of treatment planning and discussion of treatment options with the patient. Sometimes, ideal treatment is not possible due to various reasons such as costs as outlined here.

Informed patient consent is necessary and this is best done with articulated study models at hand in order to discuss with the patient the options and possible outcomes.

The spring cantilever is a relatively simple treatment procedure but good technical work is required. Moreover, an implant can always be placed in the future should the patient desire it.

Figure 1

Figure 2

Figure 3

but you can control its effects with Colgate Time Control.

With the passing of time, your gums do not cover as much of your teeth as they used to. Receding gums put you at risk of developing root cavities and could lead to further problems. The solution...**Colgate Time Control**.

Colgate Time Control has been specially formulated to provide you with everyday protection against the signs of ageing in your mouth.

Colgate Time Control Gum & Teeth Protection, Refreshing Taste

INVISIBLE BRACES

By Simon Camilleri MSc LDSRCS, M.OrthRCS, FDSRCS
Specialist in Orthodontics

Over the past ten years the rise in standards of health and personal appearance has been exponential.

This has been fuelled by the 'Information Explosion' and also to a great extent by television programmes sensationalising cosmetic procedures. Whatever the reason, for better or worse, appearance is becoming more and more an important part of our daily lives, following the trends set by the USA and Europe.

As a direct result of this, the demand for cosmetic dentistry has increased dramatically, with patients seeking and expecting more sophisticated treatment than previously. Whereas traditionally, orthodontic treatment was the prerogative of children, the demand for adult treatment grows every year. Adult orthodontics is vastly different from that of adolescents in a myriad of aspects, outside the scope of this article.

However one chief concern of adult patients is that the appliance have as little impact on their social life as possible, chief prerequisites being that the appliance not be visible or interfere with speech.

The ideal adult appliance does not exist. Both fixed and removable appliances may be used in the treatment of adults. Each modality has its own advantages and limitations and the choice of appliance must be made on a case by case basis.

Removable appliances are not highly visible and are relatively cheap; however tooth movement is limited to tipping. (Fig. 1) Furthermore they are bulky and affect speech, albeit temporarily. The fact that they are removable means that treatment is to a considerable extent dependent on patient co-operation. This may be the cause of misunderstandings between operator and patient should the result of treatment not reach the patients' expectations. Nevertheless, used with care, these appliances are handy in selected cases.

Clear vacuum formed splints (Fig. 2) have been used to perform minor tooth movement. These are useful in highly selected, favourable cases requiring minimal tooth movement and may be manufactured in the surgery, reducing costs considerably.

They are relatively invisible and as they do not cover the palate, affect speech less than do conventional removable appliances.

Fig. 1 Removable appliance treatment. Very little wirework is visible anteriorly, the bulk of the appliance being palatal.

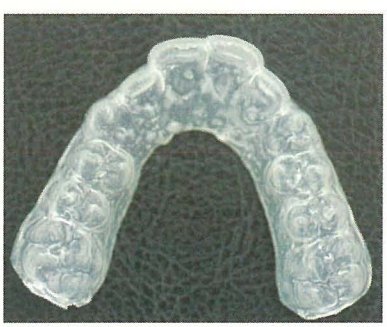


Fig. 2 Clear Vacuum Formed Splint. The teeth to be moved are cut off the model, repositioned and the splint made over the repositioned teeth. The material is flexible enough to allow the splint to fit over the teeth.

Fig. 3 Stainless Steel Brackets. The appliance is highly visible.

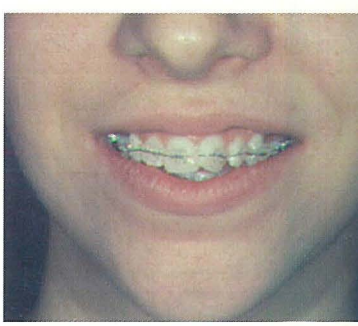


Fig. 4 Ceramic Brackets are much less visible

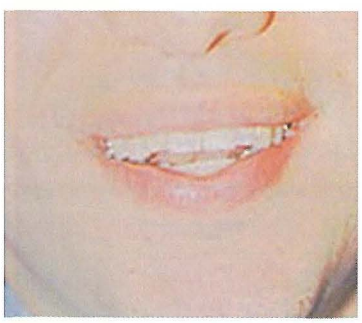


Fig. 5 Lingual Fixed Appliances are completely invisible under normal social circumstances.

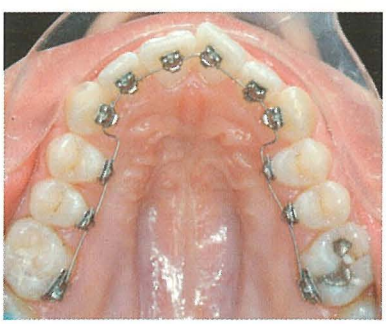


Fig. 6&7 Lingual Fixed Appliances can move teeth as efficiently as conventional fixed appliances.

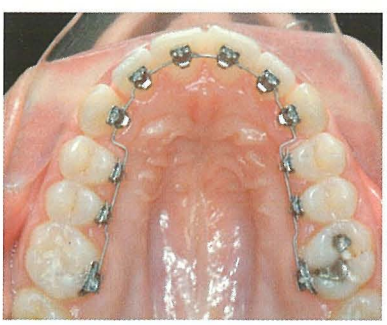


Fig. 8 A Transfer Tray is necessary for bonding of Lingual Fixed Appliances

The disadvantage of these splints is that they will only produce minimal tipping tooth movement and are removable, thus passing control of treatment to the patient.

The 'Invisalign' appliance is presented as a complete treatment procedure. It consists of a pre-manufactured series of these splints, each performing selected sequential minor tooth movement. This treatment system has the added problem of requiring intensive technical support and prolonged chairside time, raising the cost of treatment considerably.

Both removable appliances and splints are limited what they can produce in terms of range of movements and quality of result.

Fixed appliances are much more versatile and consistently produce higher quality results, more in keeping with patients' expectations. Conventional fixed appliances are relatively comfortable and do not affect speech however the 'train tracks appearance' of fixed braces (Fig. 3) constitute a psychological barrier to acceptance of treatment. Clear brackets (Fig. 4) are an attempt to reduce the visibility of fixed appliances. These may be made of ceramic, composite or plastic. They are comfortable and quite efficient with a wide range of action but are not 100% invisible.

In any case, the wire is certainly visible. Plastic and composite brackets break and wear, especially when occlusal interference is present, while ceramic brackets may be difficult to debond and may abrade opposing teeth, limiting their use to upper teeth in most instances.

Lingual fixed appliances (Fig 5, 6, 7) are completely invisible in normal social circumstances. Initially they are not quite as comfortable as conventional fixed appliances.

They may make the tongue sore and affect speech up to two weeks after fitting. The position of the brackets obviously makes the technique a difficult one. Direct bonding is not advisable, a laboratory-manufactured transfer tray (Fig. 8) is necessary to fix the appliance.

This raises the expense and causes problems if a bracket is broken or worse, lost. The narrow interbracket span was a major limitation of these appliances, affecting the range of action, however with modern superelastic wires and improved bracket design; this problem has been largely overcome and a high standard of result for almost any malocclusion is possible. Working lingually is tedious and fiddly and chairside time is twice or three times that of a conventional appliance.

Overall treatment time is increased as a result, but as the appliance is invisible, this does not seem to bother patients unduly.

However all these factors combine to raise the cost to two or three times that of a conventional appliance.

Adult orthodontic treatment is infinitely more demanding and far less forgiving than adolescent treatment. Careful case selection is imperative and this branch of orthodontics is certainly not for the beginner.

Nevertheless, whether one practises orthodontics or not, there is the obligation to inform patients of the range of treatments available and advise in general terms about advantages and disadvantages of these techniques.

In the event that the patient should wish, this will aid in the vital 'informed decision' that should be the aim of the patient consultation.

'Taste is Everything'

THE PD TOPICAL PASTE by PRODUITS DENTAIRES – an appraisal by Dr David Muscat

The PD topical paste is an appealing gel used for oral mucous tissue topical anaesthesia.

Having different flavours such as strawberry, banana, mint, cherry, bubblegum and pineapple makes it rather endearing for children and adults alike.

I like to stock most flavours as 'variety is the spice of life.' My patients always get a topical paste application prior to a local infiltration.

It basically is the 'sugar that makes the medicine go down.' People expect it. Nobody likes pain.

The gel is a good way of getting children's co-operation, attention and interaction. The benzocaine 20% (an aminoester) confers the analgesia. The benzalkonium chloride 0.1% confers antisepsis as it is a quaternary ammonium bacterial compound.

The paste acts within seconds and lasts about 15 minutes.

The product is not recommended for children under the age of five, and should not be used in excess. Benzocaine hypersensitivity is also a risk.

INDICATIONS:

1. LA of the gums prior to injection.
2. exclusive use of gel to extract a mobile deciduous tooth
3. use on oral mucous tissue prior to deep scaling
4. use prior to lancing of abscess.

WHAT YOU NEED IS SOME CHARISMA – an appraisal

By Dr David Muscat

Charisma (Heraeus Kulzer) is a radio-opaque light-curing fluoride set microglass composite which comes in 22 different shades. Charisma is made up of barium aluminium fluoride glass and silliciumdioxyde.

It is highly polishable due to the grain size of the glass filler. Take the shade whilst the teeth are still humid. Charisma has opaque layers which one may use in anterior teeth. Charisma is particularly good for cases of considerable discolourations.

It is also used for

1. Class 1 to 4 fillings
2. Adjustments of shapes and shades
3. Splinting of teeth.
4. Primary teeth restorations
5. Adjustment of developmental tooth-defects such as enamel dysplasia.

During polymerisation a dispersive layer is built up at the surface which serves as a connection of the following composite layer so it must not be touched or removed. For lengthy restorations , move the operating light so as to prevent premature setting. Avoid eugenol contact. The darker the shade -double the polymeristaion time. Eg. 2mm thick needs 40 seconds for A4. 2mm thick needs 20 seconds for B1.

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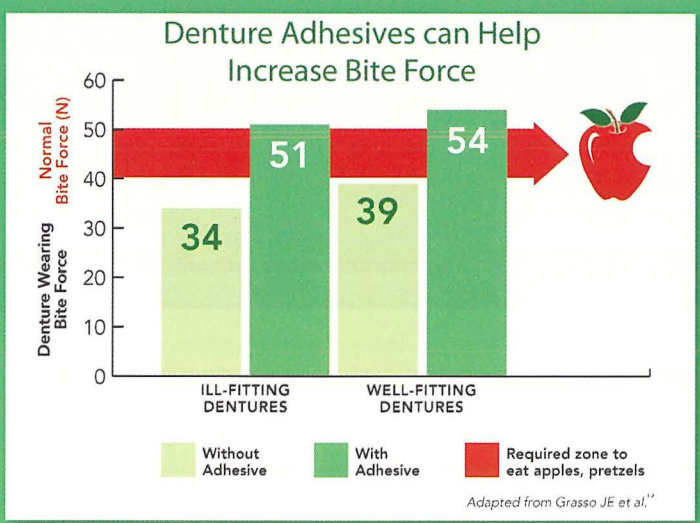
It's a fact – a denture adhesive helps build patient confidence while providing psychological support.

- Adhesives provide patients with added confidence, comfort and improved biting efficacy.[1]
- Improved Bite Force Can:
  - Allow patients to incise challenging foods[2]
  - Help improve stability and retention[3]
  - Help patients look, eat and speak with confidence.[2]



We consider your patient, our patient. Consider our tools, your tools.

1. Roessler DM. Complete denture success for patients and dentists. *Int Dent Jrnl* 2003; 53:340-345.
2. Benson D, Rothman RS, Sims TN. The effect of a denture adhesive on the oral mucosa and vertical dimension of complete denture patients. *JSCDA*. 1972; 40:468-473
3. Kapur KK. A clinical evaluation of denture adhesives. *Journal of Prosthetic Dentistry*. 1967;18(6): 550-558.

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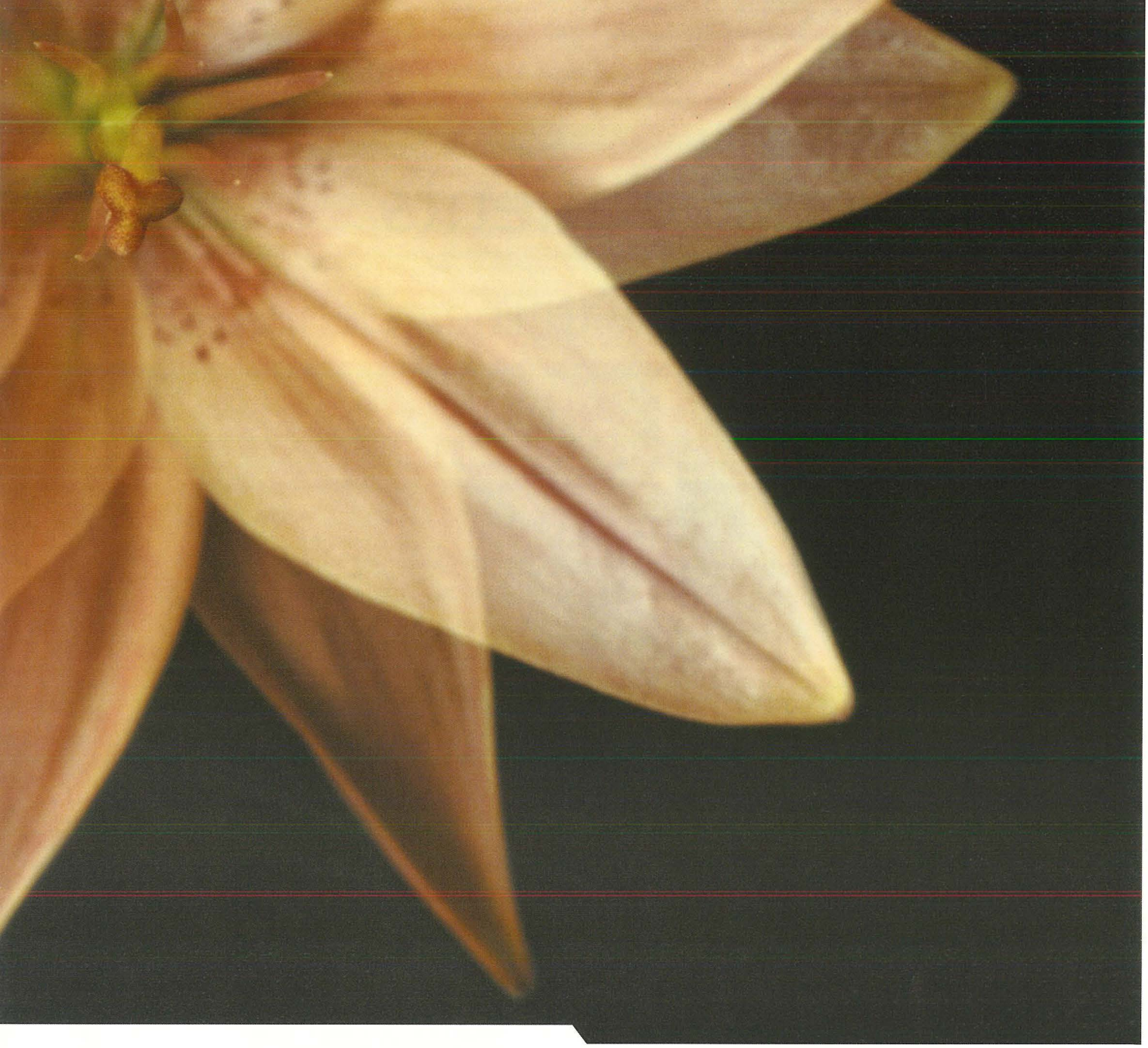

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Perio-Aid Treatment Mouthwash
Disinfection in dental interventions and in periodontal treatment.

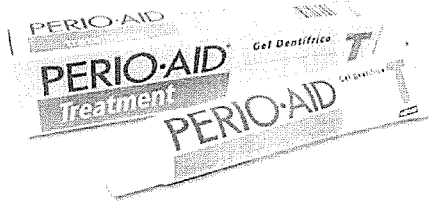
composition:

Chlorhexidine digluconate	0,12g
Cetylpyridinium chloride	0,05g
Excipient q.s.	100g

Perio-Aid Maintenance Mouthwash
Antiseptic for daily use. Can be used after treatment phase or as a substitute for oral hygiene when normal brushing is not possible.

composition:

Chlorhexidine digluconate	0,05g
Cetylpyridinium chloride	0,05g
Excipient q.s.	100g



Perio-Aid Treatment Gel-Toothpaste
For patients with orthodontic appliances or implants, for periodontal maintenance and for patients at high risk for caries.

composition:

Chlorhexidine digluconate	0,12g
Excipient q.s.	100g

Perio-Aid Treatment Spray
Disinfection in hard-to-reach areas (tonsils, tongue dorsum) or in patients with special needs.

composition:

Chlorhexidine digluconate	0,12g
Cetylpyridinium chloride	0,05g
Excipient q.s.	100g

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PERIO·AID
The clinically proven oral antiseptic

The San Lawrenz Dr Dan Keir Endo Course featuring the Lightspeed System from Discus Dental

Salient points by Dr David Muscat

1. LSX instruments are stamped. A wire is placed in a die. This is squeezed to produce a blade from a single wire. The instrument is thus more flexible and resistant to fracture.

   The spade blade enables accurate preparation at the apical third. Ledging and zipping are avoided as the nose comes in contact with a canal wall, it deflects and continues apically. The nose leads and the short blade behind it cuts. The LSX remains centered in the canal creating a round circular preparation. The torque required to break the tip of the instrument is greater than the torque required to separate the handle from the shaft so the latter occurs, making separations easy to retrieve. There are length rings on the side, dispensing with the need for rubber stops.

2. Since the LSX instrument cuts at the tip, it allows you to feel inside of the canal and determine the size of the canal.

3. A study was carried out at the University of Nebraska WHERE IT WAS SHOWN THAT INSTRUMENTS WHICH HAVE SEPARATED WITHIN THE CANAL AND ARE AT WORKING LENGTH ARE JUST AS SUCCESSFUL AS ROOT FILLINGS WITH GP AT THE APEX.

4. The apical third is much larger than you think. A mesial root on a lower molar can easily be a size 45.

5. With the LSX you know where the instrument is cutting, unlike other systems which can cut along the flute.

6. In 1977 a study was carried out on root diameters and it was found that the average diameter at the minor constriction was 0.25-0.3 mm which corresponds to size 25-30.

   Now 1mm from the working length, or apical constriction could be a size 45-50.

   If you are not working to these sizes you have not achieved microbial control. 'If you control the microbes, you control the case.'

7. One aims for a round end. Dentine has more resistance to an instrument pushing on it than vice-versa.

8. Distal canals on lower molars are commonly prepared from size 60 up to sizes 65,70,80. An upper canine can be worked to a size 90.

9. LSX is used well in a hybrid system. A good combination system is k files,2 gates gliddens, 2 piezos, LSX.Gates cut downwards. Piezos cut sideways-these are post drills.

10. STRAIGHT LINE ACCESS is first achieved.

    Access pulp chamber: Locate canal orifices-endodontic explorer.Direct your files 15,20,25 away from the furcation by forcefully directing blades mesially on mesial roots in an 'anticurvature filing' motion. The dentine at the orifices and walls is cut away with a pulling motion.

    Flare coronally-gates are used with a light pecking motion, coronally flaring the canal walls but not more than 4 mm into canal.

    A long diamond is used to make a path from top crown to mesial canals, completing the straightline access.

    The diamond is tilted to modify the path so access is modified for easy access of rotary instruments and handpiece. An apex locator is used to determine length of canals.

11. THE LIGHTSPEED LSX technique. After access, and WL start using rotaries but when resistance is felt pause and proceed carefully to WL. Your final apical size is the instrument that encounters resistance 4mm or more from WL. THE 4MM RULE. Next go to larger sizes stepping back 1mm every time – usually 3 more instruments.This is mid-root instrumentation.

    Recapitulate to WL. Final irrigation with NaOCl, then EDTA and then NaOCl again. Dry -ready to obturate.

12. The LSX works at 2500rpm.One can use an Endopal cordless handpiece. It operates at the ideal torque. It has a rechargable lithium battery. Ideally one uses 2 handpieces so the nurse hands you the next size each time. The idea is to finish with a 'cork in a bottle effect'. A good sealer is AH plus as it is resin-based.

13. SIMPLIFILL is an apical plug system. It is an obturation delivery device featuring a removable carrier. It leaves just the obturation material in the canal, it can be removed with a few simple twists. There is an ergonomic grip handle.

    You can then backfill with any technique. The HOTSHOT is one such system. A cordless compact gun used to deliver warm obturation materials.

    If you choose to use a normal gp point as opposed to Simplifill, then obturate and then also use accessory points to laterally condense.

14. Before you carry out endo, always give a LA. Check your LA by using a cold cotton pledget with tetrafluoroethane(used to clean keyboards).

15. 'If you are short on a radiograph you are not as short as you think but if you are long you are longer than you think. With an apex locator you are probably on the shorter side, which is safer.'

16. Gp can be removed with a combination of a heated instrument and chloroform, or by using Protaper instruments.

17. Whichever endo system you use, you have to back it up with biological principles.

18. THE ENDOVAC. This is a true apical negative pressure safety irrigation system, which enables safe irrigation to full working length with continuous solutions, and draws fluid apically by way of evacuation, and cleans, disinfects and removes the smear layer leaving maximum microbial control.

    Macrocannulae are used with microscopic laser holes allowing deep disinfection creating a vortex-like cleaning of the apical third. Canals are cleaned deep into dentinal tubules.

    One can make a 'home made kit' by using an Iv tubing and using your needle from your irigation syringe which you pierce into the end of your Iv tube.You can also attach an Ultradent purple capillary tip Ref 1121 or blue Ultradent Navitip tips or NaviTip FX tips.

19. STORAGE made easy. The tips can be stored on a black sponge in ascending order.after being used they are cleaned and replaced on the sponge. The sponge is marked by a white line of artists paint on the side, so the operator knows how many times the instruments have been used. The sponge is placed into a sterilisation pack and sterilised. The instruments should ideally not be used more than 4 times.

20. 'The shape of things to come will definitely require larger apical preparations and a commitment to maximum bacterial removal while maintaining the integrity and anatomy of the canal itself.'

Dr Senia
Diplomat American Board of Endodontics.

'THE PREVELANCE, DIAGNOSIS, AND MANAGEMENT OF PERI-IMPLANTITIS'

By Dr Mark Ide Consultant Periodontist.
Salient points of lecture summarised by Dr David Muscat

1. Peri implant mucositis is reversible inflammation in soft tissues around an implant. Peri implantitis is inflammation in the soft tissues around an osseointegrated implant in function with additional loss of bone.

2. There is a greater incidence of peri implantitis in patients with a previous history of periodontitis. (Karouses et al 2003)and Berglunde et al (14% over 5 years) April 2006 journal of periodontology. Zitzman and Berglundh 2008- 80% subjects and 50% implants had peri implant mucositis. 28-56 subjects; 12-43% had peri implantitis.

3. **CLINICAL FEATURES OF PERI IMPLANTITIS**
   a. bone loss progressing apically down, implant in a sauce/wedge shaped fashion.
   b. peri-implant pocketing
   c. bleeding/suppuration after probing.
   d. not painful
   e. need to differentiate between mucositis, initial osseointegration and placement issue (such as anatomy etc.)

4. **AETIOLOGY OF PERI IMPLANTITIS**
   A. infection B. loading

   INFECTION
   (LANG et al COIR 1993)
   Infection in monkeys was ligature-induced. Evidence of infection:
   a. plaque accumulation on implants leads to peri implant mucositis
   b. successful implant will have gram positive bacteria whilst a failed implant will have gram negative bacteria. The flora gets established soon after placement/ exposure. BACTERIA CAN GET TRANSFERRED FROM TEETH ONTO IMPLANTS
   c. experimental peri implantitis in animals
   d. effect of anti microbials
   e. poor oral hygiene

   Before implants are made one has to control the perio (Van Winkelhoff et al COIR 2000).

5. **MANAGING FAILING IMPLANTS**
   a. Biologically acceptable surface decontamination
      Mechanical – burs, blasting with bioglass, polishing, laser.
      Chemical – phosphoric acid (kills everything),citric acid(not so aggressive), tetracycline , EDTA, saline (not enough), chlorhexidine
   b. Surface treatment for osseoinduction. Remove bacteria, proteins, carbohydrate
   c. Stricture for reconstruction on bony defect. Cell scaffolding, stabilizing wound, promoting integration, resorbable membranes are best. Bio oss.

6. **IMPORTANT PERIODONTAL POINTS**
   a. Electrosurgery has to be used with extreme caution. It is not predictable for hard tissue, and if in contact with bone, it can cause bone necrosis.
   b. Crown lengthening procedures are very useful. Eg. In an extreme lower incisor wear case with short clinical crown heights one raises a flap and cuts away bone to the level required by the restorative dentist.

      This is planned on the study model and a blow down stent is prepared for this purpose so one can have a ready marker during surgery to where the bone has to be brought down to. Around the lower incisors, it is important to remove interdental bone during the procedure.

      The shape between the lower incisors is triangular and will afford you useful space.

Use a continuous suture if possible as this will give a neater result.

INVISIBLE ANTERIOR RESTORATIONS

By Dr Sannagh - University of Beirut.
Summarised by Dr David Muscat

1. Layering of composites is important for the preservation of dental tissues, shape and shade, Individual characteristics, a decreased polymerization shrinkage, and better adaptation of composite.

2. Dentine is more opaque than enamel and different thicknesses yield different results. One needs to work with different opacities.

3. Shade mapping: Cervical-almost no enamel-opaque / Incisal edge-a lot of enamel-translucent

4. CLINICAL SHADE SELECTION Custom shade guide, apply directly on tooth and polymerize, rubber dam isolation so you can concentrate on restoration.

TOTAL ETCH TECHNIQUE
Scrub 37%phosphoric acid on enamel and dentine so as to demineralize enamel and dentine.

BONDING
Use wet bonding to keep collagen suspension. Rub to allow good penetration. A 20 sec polymerization.

IRREGULAR BEVEL – gives better shape adaptation. A wide bevel gives better retention using diamond bur. Use 45 degrees from upper to lower part of cavity.

Do not overbuild restoration. Use painting brush for final touches of enamel.

THE DIASTEMA CLOSURE

- Clean teeth well first. Bleach if necessary. Measure symmetry with dividers and ruler.
- Roughen the teeth
- Use retraction cord to get good profile emergence.
- Do not close diastema if poor oh.
- Roughen edges on buccal and palatal sides.
- Protect adjacent teeth with aluminium foil and/or Teflon.
- Do one tooth at a time and polish – then reshape and measure where you need to add.
- THE GOLDEN RULES OF COMPOSITES
- STOCK –a)opaque or dentine shades – A2 and A35
- A 2mm A2 thickness equiv to a25.
- b) body 0r enamel A1,A2,A3,a35.
- YOU DO NOT NEED TO STOCK TOO MANY SHADES
- c) TRANSLUCENT T1 OR INCISAL

DURING STRATIFICATION

- Thin layers of composite
- 2mm max thickness
- At least 20secs for each layer of polymerization
- No need to apply bonding application between layers

NEVER extend opaque beyond bevel as aesthetics affected and white lines will ensue.

TO CHECK THICKNESS use probe behind tooth – if you can see shadow with light on buccal side you need to add more opaque.

FINISHING soflex discs, optidisc. Do not be afraid to use the coarse discs but ALWAYS USE WATER TO WASH OFF THE DUST as otherwise you will scratch surface. Enhance cups can be used. There are also special burs for polishing and multifluted burs.

SITUATIONS WANTED

LEEANN ABDILLA
Age 18. DSA at Mater Dei, MCAST dip DSA. Looking for afternoon job as a DSA. Phone 21691241, 99206134, leeannabdilla@yahoo.com

CAROLINE XUEREB age 18 DSA at Mater Dei ,MCAST dip DSA,BTEC Health and social care, looking for afternoon job as DSA. Tel 21498374, 79293747. Email caroline_xuereb@hotmail.com

SIMONE TABONE
Has 4 years experience as a dental nurse. Can work Mon-Fri 16.00 – 20.00 and Sat 08.00 – 13.00 5. It is difficult to veneer very badly tetracycline- stained teeth. Tel 79730945 / 21660942.

THE VOCO COMP NATUR – 'GUMS AND ROSES'

By Dr David Muscat

This material was developed in Hanover by Prof. Dr Gunay. My interest in the material was aroused when a patient of mine with advanced periodontal disease requested a form of 'masking' her upper and lower anterior teeth roots which were exposed quite markedly due to the recession and bone loss.

I had used composite buccally on the exposed roots , but this had resulted in the teeth looking rather long. The Comp-Natur is a gingiva-shaded compomer used for the necks of anterior teeth. There are three different opaquers in the system which can be mixed together to achieve the desired shade.

The teeth are cleaned. Futurabond is used first on the cervical areas. Then the opaquer is used after which one uses the pink compomer. Comp- Natur has a high translucency, colour stability, high compressive and transverse strength and low abrasion. There are user-friendly caps and the material is highly polishable. The modern material allows the operator to achieve an overall aesthetic improvement with an optically restored gingival line.

THE SUPERCAP AND THE SUPERMAT-AN APPRAISAL

By Dr David Muscat

The super-cap is a good band system to have in your practice as it allows you the versatility of having a matrix band without a holder attached to it.

Once placed around the perimeter of a tooth or root you can tighten using the super-lock tensioning instrument. Once the material you have filled the tooth with has set , you can loosen and remove the band easily with the same instrument. It works out about one euro per band. It is disposable and a very neat system.

The Adapt Super cap matrices are made of steel and are 'non dead soft'. There are 5mm and 6.33mm high variations and are colour coded. The system is both dentist and patient friendly.

Managing a Pedunculated Osteoma of the Mandible

A final Year Student's Oral Medicine and Surgery Case Report

By Dr Nicholas B. Dougall BChD

A 28 year old Female patient presented to the Dental department at St. luke's hospital, referred by her general dental practitioner, complaining of a hard lump beneath her tongue which has grown slowly, being of an inconvenience and somewhat debilitating.

An accurate examination and history was taken:

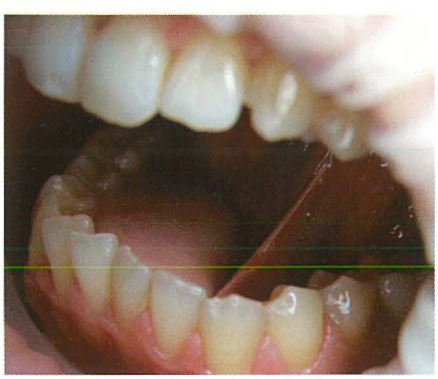
MEDICAL:
- Gastric Hyper acidity. Ultrasound performed age 16.
- Appendicectomy at age 7

DRUG: Nil, no known allergies.

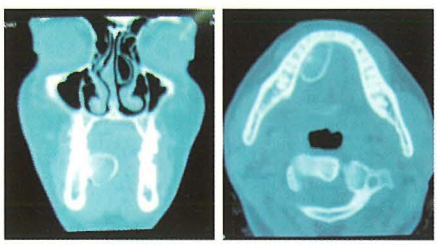
SOCIAL:
- Patient works as a customer care representative with a firm
- Married with no children as yet.
- Non smoker and non alcoholic drinker.

DENTAL: All teeth are in good health and fully erupted in the arch including 3rd molars.

Clinical photographs taken as well as a spiral CT:



The patient reports that the lump was always present in her mouth. It grew considerably at the age of 13-14, during puberty. The Patient did not notice it growing any more after this time. She was advised by her GDP that it was best to investigate the lesion and remove it if possible.

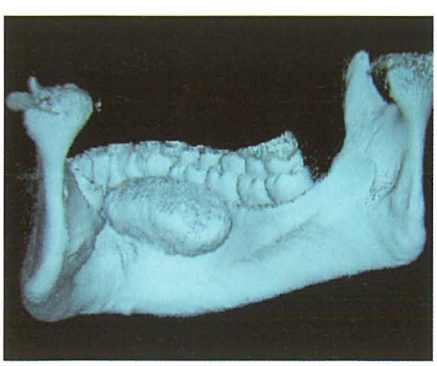


A hard, smooth swelling can be observed extending from the distal border of the lower left lateral incisor, lingually, to the distal border of the lower right first molar. It extends roughly 3-4 cm lingually and appears to be situated above the mylohyoid line.

Electric pulp tests carried out on all of the lower teeth showed that they are all vital.

RELEVANT NOTES:
- The patient has no history of any gastric disorders.
- No supernumerary or unerupted teeth can be seen from the radiograph.

TREATMENT PLAN:
After careful examination of the radiographs and clinical presentation, it was decided to perform an excisional biopsy under GA.



PREOP:
Date: 08/03/06

The risks and complications of the operation were explained to the patient.

Mainly:

1. Lower teeth adjacent to lesion might be compromised (very small chance)
2. During the operation the lesion might bleed profusely.
3. There is an unlikely chance that the surgeon might need to open extra-orally.
4. There will be considerable discomfort during the healing phase after the operation. A considerable number of sutures will be placed in the floor of her mouth.
5. There will be bruising both intra-orally. Some may even show extra-orally on her chin and sub mental region.
6. At least 4 days refraining from going to work will be necessary.

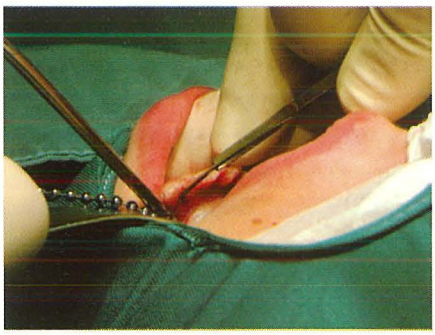
The patient understood all of the above and agreed to the risks and complications by signing the consent form.

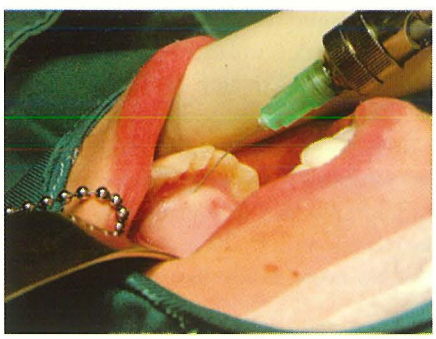
On the day before the surgery, a Chest X-ray, CBC+U&E, ECG and Urine Analysis were carried out. All values were in the normal range and thus the patient was cleared for GA.

OPERATION:

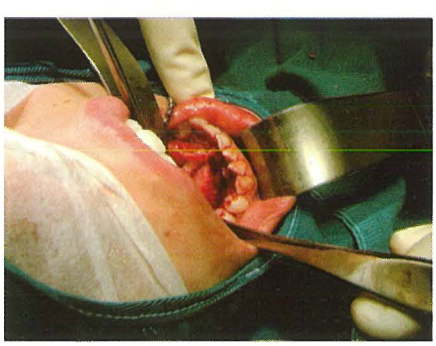
Date:	15/03/06
Surgeon:	Mr. A. Cassar
Assistant:	Dr. N. B.Dougall
Anaesthetist:	Dr. Spiteri / Dr. Borg

PROCEDURE:
1. Patient was anaesthetised
2. Local Anaesthesia was given using 2 mental blocks and infiltrations around the lesion using 2% Lignocaine solution with 1: 80 000 Adrenaline solution.
3. An envelope flap incision extending from 33 – 46.





5. Relieving incisions were cut around the lesion and a muco periosteal flap was raised lingually exposing bone.
6. It was observed that the lesion was pedunculated with a wide base extending from the lower left 3 4 5 region.
7. A tungsten Carbide fissure bur in a straight hand piece was used to de-bulk the pedicle from the mandibular cortical bone, in order to facilitate the use of an osteotome. It was observed that the medullary bone beneath the cortical plate was quite soft, thus enabling easier removal of the bulk.
8. An osteotome was used to completely excise the lesion and deliver it intact.



9. The lesion was placed in fixative and sent for histological analysis.
10. Careful curettage of the bony defect was carried out with a round bur until a smooth surface was obtained.
11. Bone wax was applied to control haemorrhage.
12. The muco-periosteal flap was discarded as the blood supply to it was questionable.
13. The defect was closed by undermining the mucosa of the floor of the mouth and approximating it to the attached mucosa. Several mattress vicryl sutures were placed to secure the flap.
14. An infiltration of Marcaine long acting local anaesthetic was given to reduce discomfort.
15. Voltaren suppository 50 mg was administered to reduce inflammation.

Pathology Report

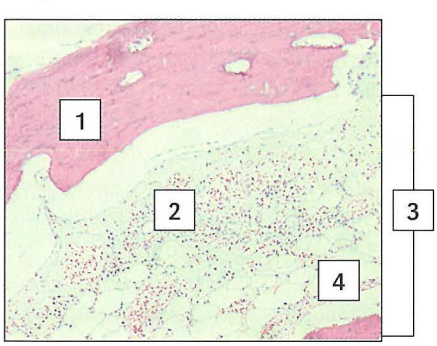
MACRO:

- Elongated partly haemorrhagic hard nodular piece of tissue measuring 4 x 1.4 x 1 cm.
- 2 sections from both ends labelled [1]
- 2 random transverse sections labelled [2]

MICRO:

Sections show a benign osteoma with mature peripheral bone and haemopoietic bone marrow tissue.
Diagnosis: Benign Osteoma.
Date Reported: 05/04/2006

Low Power (10x0.25) Histological Slides of Specimen:



KEY:

1. Cortical Bone
2. Extravasated red blood cells
3. Haematopoietic tissue trapped between cortical plates
4. Fat

DISCUSSION

Osteomas are tumours of bone tissue which may present as outgrowths of membranous bones of variable sizes. Osteomas are slow growing lesions that are normally completely asymptomatic. They are found mostly on skull and facial bones. Tumours composed of primarily cancellous bone, are referred to as osteoma spongiousum. Those whose principal component is compact bone, it is known as osteoma durum.

The highest incidence is in the sixth decade. Some authors report that osteomas occur more often in women than men (3:1). Umit Ertas [3] carried out a review of the English literature of the last 30 years revealed only 16 well documented cases: 15 in the mandible and 1 in the body of the maxilla. Kaplan et al reported the age at which the lesions are first identified ranges between 15 and 75 years, the majority being noticed after the age of 25. The duration of the lesions varies between 1 and 22 years.

The most common location of osteomas is the skull, but the lesions also do occur in the jaws. The mandible is more frequently involved; the most common sites are the lingual aspect of the body, the angle and the inferior border of the mandible.

Large osteomas may also develop on the clavicle, pelvis, and tubular bones (parosteal osteomas). Soft tissue osteomas may occur in the head, eye, and tongue, or in the extremities.

The etiology of osteomas is unclear. They may be related to osteoblastomas or may simply be a developmental anomaly. The fact that they are often found in the auditory canals of swimmers and divers who frequent cold water suggests that in some cases they are some type of inflammatory reaction. There are two types of osteomas microscopically. Compact or "ivory" osteomas are made of mature lamellar bone. They have no Haversian canals and no fibrous component. Trabecular osteomas are composed of cancellous trabecular bone with marrow surrounded by a cortical bone margin. Trabecular osteomas can be found centrally (endosteal) or peripherally (subperiosteal).

Continues on the next page.

Managing a Pedunculated Osteoma of the Mandible

Continues from previous page.

The pathogenesis of peripheral osteoma is still unknown. Some investigators classify it as a reactive condition triggered by trauma, because peripheral osteomas are generally located on the lower border or buccal aspect of the mandible which are traumatized areas and others consider it as a true neoplasm.

Peripheral osteomas are probably not neoplastic in nature because in the majority of cases their growth potential and growth rate seem to be limited. Umit Ertas [3] reports that 24% of cases of peripheral osteoma of the mandible in UK studies were associated with a history of trauma which may cause subperiosteal bleeding or edema that simulate an osteogenic reaction. Trauma may be minor, that is, unlikely to be remembered by the patient years later.

Bony hyperplasia associated with muscle traction is also a documented phenomenon. It is suggested a combination of trauma and muscle traction may play a role on its development. Either one or both might imitate an osteogenic reaction that could be perpetuated by the continuous muscle traction in the area. It is thought masseter traction, in particular, might play a role in the occurrence of this lesion.

The discovery of an osteoma of the facial skeleton should raise the possibility of Gardener's syndrome. Patients with Gardner's syndrome may present with symptoms of rectal bleeding, diarrhea, and abdominal pain. The triad of colorectal polyposis, skeletal abnormalities, and multiple impacted or supernumerary teeth is consistent with this syndrome.

Onset occurs in the second decade, with malignant transformation of the colorectal polyps approaching 100% by age 40. The skeletal involvement includes both peripheral and endosteal osteomas, which can occur in any bone but are found more frequently in the skull, ethmoid sinuses, mandible, and maxilla.

The radiological appearance of osteomas depends on their location. Central osteomas are well delineated sclerotic lesions with smooth borders, without surface irregularities or satellite lesions. They are often described as having the appearance of "one-half of a billiard ball" attached to the underlying bone. The adjacent cortex is not involved or weakened.

Peripheral osteomas are radiopaque lesions with expansive borders that may be sessile or pedunculated. They occur most frequently in the frontal, ethmoid, and maxillary sinuses but are not common in jawbones.

Patients will seek medical advice usually if the location of the osteoma within the head and neck region is causing problems with breathing, vision, or hearing.

Bone scan will show increased uptake during the active phase of growth. Bone Scintigraphs show the uptake of HMDP (hydroxymethylene disphosphonate), which has an affinity for sites of mineralization. It is coupled with Technetium 99m, and thus used as a marker (Tc99m Oxidronate (HMDP)). The level of uptake will diminish to background levels as the lesion becomes progressively less active.

The triad of examinations which should follow any suspicion of an osteoma are:

1) Orthopantomogram – An inconclusive diagnostic tool which is taken simply to identify the location on a two dimensional plane of the jaws.
2) Computed Tomographical Scans – An invaluable aid in diagnosing the exact position of the osteoma/s and revealing whether they are in cortical or spongy bone.
3) Bone Scintiograph – Using the marker Tc99m Oxidronate, one can determine whether the osteoma is in active growth phase or not.

Definite diagnosis is made only upon examination of histological slides. An excisional biopsy is usually carried out. Histology of osteomas in the head and neck show dense lamellar bone with Haversian systems and viable osteocytes.

The differential diagnosis should include osteochondroma, fibrous dyplasia, chondroma, ossifying fibroma, condensing osteitis, tori and exostoses. Osteomas need to be differentiated from enostosis (a mass of proliferating bone tissue within a bone) which also appear as densely sclerotic well-defined lesions on x-ray.

Management is usually by total excision of the mass and re-contouring of surrounding bone to restore natural aesthetics and function. The lesion rarely recurs after surgical excision, and it is not associated with malignant change. Multiple osteomas are associated with Gardner's syndrome. Upon suspicion of Gardner's syndrome, barium passage radiographs of the large intestine should be requested in order to exclude any polyposis of the intestine.

Three distinct disease entities are associated with Gardner's syndrome: (1) familial adenomatosis or polyposis of the intestine, (2) surface tumors of hard and soft tissues. Surface tumors of hard tissues or osseous abnormalities can range from osteocortical hypertrophy to pedunculated osteomas. Osteomas may occur in the mandible, maxilla, sinus cavities and long bones. In addition, Gardner's syndrome is known to be associated with (3) abnormal dental growth, tooth impaction, supernumerary teeth and odontomas. This patient had none of the above, and thus Gardner's syndrome was ruled out.

BIBLIOGRAPHY:

1. *Bulloughs, Peter, Orthopaedic Pathology (third edition), Times Mirror International Publishers Limited, London, 1997.*
2. *Huvos, Andrew, Bone Tumors: Diagnosis, Treatment and Prognosis, W.B.Saunders, Co., 1991.*
3. *Umit Ertus; Snar Tozoglu. Uncommon peripheral osteoma of the mandible: A report of 2 cases. Journal of contemporary dental practice. WWW. theJDPC.com 2003.*
4. *Spencer WR, Ronald RC, Carol EF. Gardner's syndrome: report of case. J Oral Surg 1981;39:50_/2.*
5. *Gorlin RJ, Cohen MM, Levin LS. Gardner syndrome. In: Gorlin RJ, Cohen MM, Levin LS, editors. Syndromes of the head and neck, 3rd ed.. Oxford University Press: New York, 1990:366.*
6. *Gardner EJ, Richards RC. Multiple cutaneous and subcutaneous lesions occuring simultaneously with hereditery polyposis and osteomatosis. Am J Hum Genet 1953;5:139_/47.*

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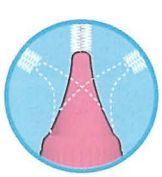

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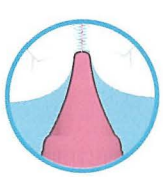

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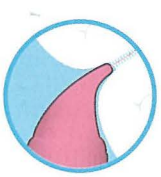

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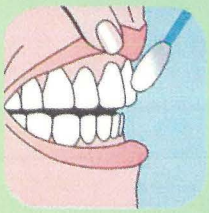

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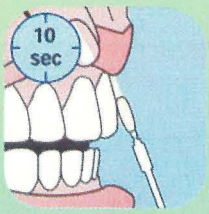

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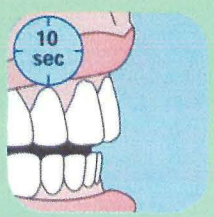

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