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Predictable Dentistry

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Editor



Dr. Albert MP Lee

Teeth are embedded in an oral environment that is not static but encompassed in a dynamic condition with ever changing unpredictable factors which affect the outcomes of dental treatment. Any materials placed in the oral cavity are subject to constant attacks by acidic to alkaline chemicals generated from food, drinks and bacterial byproducts. Any restorations or prostheses placed on the teeth have to resist constant chewing forces from mastication and para-functions like bruxism. The challenges for the dental clinician is to overcome this hostile environment and to give patients the best possible results of treatment.

Predictable results are the most desirable outcomes of dental treatment. Predictability of dental treatment relies on information from scientific researches, clinical studies and experience of the clinician in performing certain procedures. Predictable dentistry does not only imply immediate and short-term success; but a long-term symptom-free, functional and complication-free treatment result. New techniques, and/or new materials might be delusive due to lack of long-term clinical evaluation leading to early failures and complications. Dental clinicians must have broad knowledge of dental material science and different treatment approaches in order to predict the outcomes of treatment. For example, amalgam restoration might be out of fashion in terms of aesthetic, conservative of tooth structure and mercury issues; however, it is still a very predictable treatment of choice in restoring the anatomy and function of teeth in respect to retention, strength and resistance to masticatory forces.

Individual clinicians will have different experience, skill and knowledge in performing certain clinical procedures. Self-evaluation is an important aspect to assess the predictability of different clinical modalities carried out by the dentist. A simple retrospective study indicating the failure rate in short- and long-term periods will give the clinician an idea how predictable is the treatment being carried out. With these data in mind, clinicians can evaluate different procedures and to give patients the best options during treatment planning. Dentists want to sleep well at nighttime and predictable dentistry is the most practical approach in modern dentistry.

In 44 controlled clinical studies in more than 100 publications including 58 scientific posters and 56 scientific articles¹...

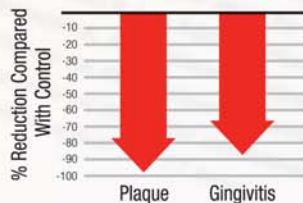
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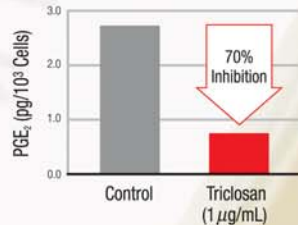
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Office-based Sedation for Paediatric Dental Patients

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Introduction

Behavioural management of young or handicapped patients is a major challenge to clinicians. Very often, excessive time and efforts have to be made to conduct a dental examination, let alone the delivery of treatment. In the past, different modalities of sedation techniques have been employed to facilitate treatment.¹ The most common drug regimens and techniques are listed in Table 1.

In most published studies,²⁻⁴ any sedation regimen that allows a procedure to be completed is counted as successful. For instance, with oral Midazolam, a patient who may cry or scream during the procedure and sleep for two hours is considered an equal success as another patient who lies perfectly still under brief Propofol sedation. An ideal sedation procedure should be easy to administer with a wide margin of safety. Rapid onset and recovery with little emergence reactions are other important criteria so as to minimise pre- and post-operative discomfort and reduce patient monitoring time. In addition a smooth and well-controlled sedated patient throughout the treatment procedure will render the process stress-free for the patient, clinician and parents.

There are certain limitations with different regimens. Paradoxical reactions and prolonged sedation post-operatively are common with oral sedatives such as Midazolam and chloral hydrate. The patient may wake up in the middle of the treatment and compromised procedures may ensue. With inhalation sedation by nitrous oxide, it is difficult to achieve or maintain the desired sedated state if the patient keeps on crying or unco-operative with breathing through the nasal hood. Intravenous induction by Ketamine or Propofol remains a problem because of the difficulty in obtaining vascular access in the awake and frightened child. In view of the above technical and pharmacological limitations, a novel technique for office-based sedation combining inhalation induction by Sevoflurane and intra-venous sedation by Propofol is developed (Picture 1). This article will describe the clinical protocol of this technique.

1. Pharmacological Considerations

Potent volatile anaesthetic agents are used for induction of anaesthesia to avoid the struggle to get intravenous access before the child is asleep. Sevoflurane is a potent volatile anaesthetic (Minimum Alveolar Concentration in children is 2.49%) with low blood-gas solubility⁵, resulting in fast onset and offset (induction often within one minute). Sevoflurane is therefore ideal for induction before infusion of a total intra-venous anaesthetic (TIVA) such as Propofol to maintain the sedation.

Propofol is a water-immiscible oil which is formulated as an emulsion with a soya oil base to facilitate injection. The elimination half-life of Propofol is estimated to be between 2-24 hours. However, its duration of clinical effect is much shorter because Propofol is rapidly distributed into peripheral tissue, and its effects therefore wear off considerably within even a half hour of injection. This, together with its rapid effect (within minutes of injection) and the moderate amnesia it induces makes it an ideal drug for intravenous sedation.⁶

The combination of an inhalation induction of Sevoflurane, and maintenance of sedation by intravenous infusion of Propofol has made dental treatment possible for most paediatric patients who would otherwise require general anaesthesia in order to undergo the treatment.

2. Patient Selection and Pre-operative Preparation

For pre-operative assessment, the clinician should only select ASA I and II patients and review their medical

Drug regimen	Dose/route of administration	Comments
Midazolam	0.5-0.75 mg/kg (PO) 0.025-0.5 mg/kg(IV) 0.2 mg/kg (Intranasal)	Track record of safe use both PO and IV Paradoxical reactions are not infrequent Intranasal route is irritating to the nasal mucosa
Chloral hydrate	50-100 mg/kg (PO)	Still the most popular drug for oral sedation Prolonged sedation and paradoxical reactions are reported Monitoring after sedation required
Nitrous oxide	50% in 50% oxygen, up to 70% (Inhalation)	Long history of safe use providing moderate sedation for minimally/moderately painful procedures Care must be taken when used in addition to other sedatives where deep sedation can easily result
Ketamine	3-4 mg/kg (IM) 1-2 mg/kg (IV)	Effective sedation and analgesia for painful procedures Relatively common nausea and vomiting after procedure Laryngospasm reported Best if combined with an anticholinergic drug for control of secretions
Propofol	100-200 µg / kg / min (IV)	Ideal agent for non-painful diagnostic procedures Only for use by expert airway managers with good back-up systems



history and current medication use. Verbal or written instructions such as fasting guidelines (NPO) must be given to the parents/caretakers of the patients. Informed consent to the sedation and clinical procedures must be signed by the parents/guardian. Pre-operative screening is mandatory to identify contra-indications to the sedation procedures such as known or suspected airway problems, pulmonary disease, severe gastro-oesophageal reflux disease and cardiac disease.

3. Personal and Equipment Requirement

In the administration of intra-venous Propofol, it is suggested that ONLY anaesthetists working in an appropriate environment should practise this technique.⁵ Equipment set up must include vaporiser for Sevoflurane induction, positive pressure oxygen for ventilation (Picture 2), computer-controlled infusion pump and monitoring system for oxygen saturation, heart rate, blood pressure, and ventilation (Picture 3). Equipment suitable to provide advanced airway management and advanced life support should be on the premises and available for use. Pharmacological antagonists/boosters and resuscitation medications should also stand by in case of emergency.

4. Clinical Procedures

With the parent holding the child, seated in a suitable chair, the anaesthetist will place the oxygen mask over the patient's nose and mouth. With a cooperative child, a 50% mixture of nitrous oxide in oxygen can be gradually introduced (coloured reservoir bags can help to bring a sense of "play") As the child gets used to the induction, Sevoflurane can be gradually introduced. (The child can be encouraged to blow away the nasty smell). After a few more breaths and usually within 10 to 20 seconds, the child is sedated and ready for the intra-venous access. The intra-venous cannula is placed either in the hand or ankle, and connected to the infusion pump with low dead space iv tubing. Following an initial loading dose, (usually 1mg/kg body weight) the anaesthetist will titrate the maintenance dosage needed to achieve satisfactory sedation, ranging from 0.3 to 4mg/kg/hour. This technique provides conditions which allow the dental surgeon to complete procedures, without compromising the treatment because of patient movement or a combative reaction. With good co-ordination between the anaesthetist and the clinician, the timing for recovery from sedation, upon completion of treatment can be as short as a few minutes. After the procedure, the patient must be monitored until he/she has met discharge criteria before they leave the clinic, and post-operative instructions must be given to the parents.

5. Safety Tips

During treatment, it is important to maintain a patent airway as the patient breathes by him/herself. Transient oxygen desaturation (under 90% SpO₂) can be relieved by placing mouth prop, nasal cannula, head tilt, jaw thrust, and avoid compressing the mandible. The airway can be protected by rubber dam and placing the patient in the sniffing position (Picture 4).

Irrigation fluid collects in the natural curvature of the pharynx when the neck is extended, and together with the careful use of suction, aspiration of fluid into the patient's airways can be avoided. To prevent hypothermia during sedation, it is advisable to cover the patient with a blanket. Adequate use of local anaesthesia can keep the level of sedation to the minimal.

Discussion

In order to carry out extensive dental treatment for apprehensive patients that involve surgery, root canal therapy or lengthy restorative procedures, moderate to deep sedation is the level of sedation required to accomplish the task. Deep sedation is defined as the drug induced depression of consciousness when the patient cannot be easily aroused except by pain. The patient has impaired ability to independently maintain airway but cardiovascular function is usually maintained.

For different levels of sedation, the American Dental Association and American Academy of Pediatric Dentistry have listed comprehensive guidelines for monitoring and management of paediatric patients during and after sedation for diagnostic and therapeutic procedures.^{8,9} For clinicians using sedation to deliver treatment to their patients, it is strongly recommended that one should comply with the listed guidelines so that the treatment procedures are carried out under optimal conditions.

Although the incidence of mortality and morbidity associated with paediatric sedation are rare^{10,11} the focus on sedation safety must remain a top priority.

Attention should also be directed towards minimising side effects and toxicity so that the concern of the parents on any potential adverse effect on the patient can be alleviated. In addition, it is envisaged that more research and development on improving patient monitoring system will bring about a better-controlled and more predictable level of sedation.¹² Due to their pharmacological characteristics, Sevoflurane and Propofol offer a very quick onset and offset of sedation. The desired level of sedation can be readily adjusted by changing the infusion rate and dosage making them the drugs of choice.

In Hong Kong, according to the data from Oral Health Survey in 2001,¹³ the dmft of 5-year-olds has a mean value of 2.3. Although 51% of these children remain caries free, 24% of children accounted for 78% of teeth affected by decay. In other words, there is a high-risk group of children who are presenting with severe dental problems. In order to deliver comprehensive dental rehabilitation to these children who are too young to cope with treatment, sedation or general anaesthesia (GA) is often needed. Another group that also have indication for dental treatment under sedation is the handicapped or autistic children. Such special needs children are often put on long waiting lists in the hospital GA schedules. Office-based sedation can be a cost-efficient alternative for such patients.



Recent studies comparing costs in providing dental care for special needs patients under sedation versus general anaesthesia found that mean office sedation charges are 20% to 30% of mean hospital GA charges.^{14,15} Hence, office-based, ambulatory sedation and anaesthesia play an integral role in the management of anxiety and pain control of dental patients. It is in the best interest of the public and the profession that access to these cost-effective services be made widely available.

Conclusion

With well-trained clinicians and anaesthetic staff, full equipment set up and following standardised protocol, office-based sedation offers a viable option for such patients whose dental treatment may otherwise be impossible to render.



Picture 1



Picture 2



Picture 3



Picture 4

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Quality of Life and Orthodontic Treatment Need Related to Occlusal Indices

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This article has been selected by the Editorial Board of the Hong Kong Medical Diary for participants in the CME programme of the Medical Council of Hong Kong (MCHK) to complete the following self-assessment questions in order to be awarded one CME credit under the programme upon returning the completed answer sheet to the Federation Secretariat on or before 31 October 2007.

Introduction

Malocclusion is a common oral disorder which manifests itself during childhood and the correction of malocclusion (orthodontic treatment) is frequently carried out during childhood¹. With the growing demand for orthodontic treatment a variety of clinician-based indices have been developed to classify various types of malocclusion and determine their orthodontic treatment need²⁻⁴. These indices can be used in estimating orthodontic treatment need, prioritising of treatment need in patients referred for orthodontics particularly where there are limited resources for orthodontics among public health care services, and safeguarding for the patients^{5,6}. It is reported that patients' occlusion might become worse if patients with minor malocclusion receive orthodontic treatment⁴. The most commonly employed malocclusion indices are the Dental Aesthetic Index (DAI), Index of Orthodontic Treatment Need (IOTN), Peer Assessment Rating^{7,8} and Index of Complexity, Outcome and Need (ICON)⁹⁻¹¹.

Significant advances have been made in the assessment of oral health related quality of life (OHQoL) in a comprehensive manner in recent decades. A plethora of valid and reliable measures already exists for use among adults and promising research is emerging on the use of such a measure among children¹². Some studies have been attempts to determine the association between individual occlusal indices and oral health related quality of life. Understanding the relationship between the child's subjective perception and occlusal indices can help orthodontist to comprehensively evaluate the treatment need since a person's subjective perceptions of their oral health are central to the assessment of their oral health needs.

The purpose of this review is to briefly describe the commonly used occlusal indices and evaluate the relationship among them and in addition, to assess the association between the occlusal indices and patients' perceptive oral health related quality of life (OHQoL).

Occlusal indices

Generally, among the commonly used indices, IOTN (AC, DHC), DAI and ICON are used to assess the

orthodontic treatment needs while ICON and PAR are used to assess the treatment outcome. In some ways, the indices of IOTN, DAI and ICON are similar. All include two components-morphological and esthetic. The difference is that for the IOTN, the esthetic component is separated from the dental health component. All the three indices measure similar traits such as overjet, reverse overjet, open bite, overbite, antero-posterior molar relationship, and displacement. However, the weight of these traits are rated differently by each index⁹⁻¹¹. The four indices are described below.

Index of Orthodontic Treatment Needs

Brook and Shaw¹⁰ developed a valid and reproducible index (Index of orthodontic treatment need - IOTN) to determine orthodontic treatment need. This index attempts to rank malocclusion in terms of the significance of various occlusal traits for an individual's dental health and perceived aesthetic impairment. It intends to identify those individuals who would most likely benefit from orthodontic treatment. The index has two components, the aesthetic and dental health components, which rank malocclusion in increasing priority according to aesthetic considerations and dental health implication.

(1) Aesthetic Component (AC)

AC consists of a scale of ten colour photographs showing different levels of dental attractiveness¹³. The dental attractiveness of prospective patients can be rated with reference to this scale. Grade 1 represents the most and grade 10 the least attractive arrangement of teeth. The score reflects the aesthetic impairment. Monochrome photographs are used for dental cast assessment. These have an advantage in that raters are not influenced by oral hygiene, gingival conditions or poor colour matches in restorations affecting anterior teeth. Grade 1, 2, 3 and 4 represents no or slight need for treatment, grade 5, 6 and 7 represents moderate or borderline need for treatment, grade 8, 9 and 10 represents need for orthodontic treatment.

(2) Dental Health Component (DHC)

DHC involves features that might impair the health and function of the dentition. It is based on the index of the Swedish Medical Health Board¹⁴. The DHC records the



various occlusal traits of a malocclusion that would increase the morbidity of the dentition and surrounding structures. The traits of malocclusion are: overjet, reverse overjet, overbite, open bite, crossbite, displacement of teeth, impeded eruption of teeth, buccal occlusion, hypodontia and defects of cleft lip and palate. Functional disturbances are also recorded which included lip competency, mandibular displacement, traumatic occlusion and masticatory or speech difficulties. Only the worst occlusal feature is recorded. There are five grades, Grade 1 and 2 represent no need or slight need for treatment, grade 3 represents moderate or borderline need for treatment, grade 4 and 5 represents need for orthodontic treatment. The components of DHC are shown in *Table 1*.

Table 1. The Dental Health Components of the index of index of orthodontic treatment need (IOTN) (Shaw et al, 1989)

Grade 5 (Need treatment)	
5.i	Impeded eruption of teeth (except for third molars) due to crowding, displacement, the presence of supernumerary teeth, retained deciduous teeth and any pathological cause.
5.h	Extensive hypodontia with restorative implications (more than 1 tooth missing in any quadrant) requiring pre-restorative orthodontics.
5.a	Increased overjet greater than 9mm
5.m	Reverse overjet greater than 3.5mm with reported masticatory or speech difficulties.
5.p	Defects of cleft lip and palate and other craniofacial anomalies.
5.s	Submerged deciduous teeth.
Grade 4 (Need treatment)	
4.h	Less extensive hypodontia requiring pre-restorative orthodontic or orthodontic space closure to obviate the need for prosthesis.
4.a	Increased overjet greater than 6mm but less than or equal to 9mm.
4.b	Reverse overjet greater than 3.5mm with no masticatory or speech difficulties.
4.m	Reverse overjet greater than 1mm but less than 3.5mm with reported masticatory or speech difficulties.
4.c	Anterior or posterior crossbites with greater than 2mm discrepancy between retruded contact position and intercuspal position.
4.l	Posterior lingual crossbite with no functional occlusal contact in one or both buccal segments.
4.d	Severe contact point displacements greater than 4mm.
4.e	Extreme lateral or anterior open bite greater than 4mm.
4.f	Increased and completed overbite with gingival or palatal trauma.
4.t	Partially erupted teeth, tipped and impacted against adjacent teeth.
4.x	Presence of supernumerary teeth.
Grade 3 (Borderline need)	
3.a	Increased overjet greater than 3.5mm but less than or equal to 6mm with incompetent lips.
3.b	Reverse overjet greater than 1mm but less than or equal to 3.5mm.
3.c	Anterior or posterior crossbites with greater than 1mm but less than or equal to 2mm discrepancy between retruded contact position and intercuspal position.
3.d	Contact point displacements greater than 2mm but less than or equal to 4mm.
3.e	Lateral or anterior open bite greater than 2mm but less than or equal to 4mm.
3.f	Deep overbite complete on gingival or palatal tissues but no trauma.
Grade 2 (Little need)	
2.a	Increased overjet greater than 3.5mm but less than or equal to 6mm with competent lips.
2.b	Reverse overjet greater than 0mm but less than or equal to 1mm.
2.c	Anterior or posterior crossbites with less than or equal to 1mm discrepancy between retruded contact position and intercuspal position.
2.d	Contact point displacements greater than 1mm but less than or equal to 2mm.
2.e	Anterior or posterior open bite greater than 1mm but less than or equal to 2mm.
2.f	Increased overbite greater than or equal to 3.5mm without gingival contact.
2.g	Pre-normal or post-normal occlusions with no other anomalies (includes up to half a unit discrepancy).
Grade 1 (None)	
1.	Extremely minor malocclusions including contact point displacements less than 1mm.

The Dental Health Component is usually recorded at the chair side by direct examination of the subject but can also be recorded from dental casts. When using dental casts alone it is unlikely that clinical information will be readily available to the examiner. For this reason a protocol has been developed which should be employed when using dental casts. The protocol always assumes the worst scenario.

(1) If the overjet is 3.5mm - 6mm on the dental casts, it is assumed the lips are incompetent and will be awarded grade 3a.

(2) If there are crossbites on dental casts, it is assumed a discrepancy between retruded contact position and intercuspal position of greater than 2mm is present and will be awarded grade 4c.

(3) If there are reverse overjets on dental casts, it is assumed that masticatory or speech problems are present and will be awarded at least 4m.

Peer Assessment Rating

The PAR index is a quantitative occlusal index measuring how much a patient deviates from normal alignment and occlusion. This index is designed to measure the efficacy or the outcome of orthodontic treatment by comparing the severity of occlusion on pretreatment and post-treatment casts. The PAR index has five components^{7,8}:

(1) Upper and lower anterior segments. Scores are recorded for both upper and lower anterior segment alignment. The features recorded are crowding, spacing and impacted teeth.

(2) Buccal occlusion. The buccal occlusion is recorded for both left and right sides. The recording zone is from the canine to the last molar. All discrepancies are recorded when teeth are in occlusion.

(3) Overjet. Positive overjet as well as teeth in crossbite is recorded. The most prominent aspect of any one incisor is recorded. If the two lateral incisors are in crossbite while the centred incisors are with increased overjet of 4mm, the score will be 3 for crossbite and 1 for the positive overjet, 4 in total.

(4) Overbite. The vertical overlap or open bite of the anterior teeth is recorded.

(5) Centreline assessment. The centreline discrepancy between the upper and lower dental midline is recorded in relation to lower central incisors.

The PAR index is applied to an individual's pre- and post-treatment study casts. Scores are assigned to each component. The individual scores are calculated in each component and multiplied by a weight of each component. Scores are summed to obtain a total score that represents the degree a case deviates from normal alignment and occlusion. The degree of improvement as a result of orthodontic intervention is obtained by calculating the difference between the pre- and post-treatment PAR scores. The degree of improvement can be assessed using two different methods:

(1) Nomogram: The degree of change is separated into 3 sections: (a) worse or no difference, (b) improved and (c) greatly improved.

(2) Percentage improvement: This method gives a more sensitive assessment than the nomogram which only provides three broad bands of treatment change. A change of score from 40 to 10 would represent an 80% improvement as would a change from 15 to 3. However, the actual reduction in PAR scores is also relevant as in the first case where there has been a much greater change with a 30 point reduction as opposed to the second case in which the degree of change is less with only a 12 point reduction.



Index of Complexity, Outcome and Need

The Index of Complexity, Outcome and Need (ICON) has been developed recently and claims among other things, to evaluate orthodontic treatment complexity. ICON is based on the subjective judgements of 97 orthodontists from nine countries¹¹. It is a single assessment method to quantify orthodontic treatment complexity, outcome and need. The ICON consists of following five weighted components, Table 2:

- (1) The Aesthetic Component (AC): The dental aesthetic component of the IOTN is used. Once this score is obtained it is multiplied by the weighting of 7.
- (2) Crossbite: Crossbite is deemed to be present if a transverse reaction of cusp to cusp or worse exists in the buccal segment. This includes buccal and lingual crossbites consisting of one or more teeth with or without mandibular displacement.
- (3) Anterior vertical relationship: This trait includes both open bite (excluding development conditions) and deep bite. If both traits are present only the highest scoring raw score is counted. Scoring protocol is given in Table 2.
- (4) Upper arch crowding/spacing: The sum of the mesio-distal crown diameters is compared to the available arch circumference, mesial to the last standing tooth on either side.
- (5) Buccal segment antero-posterior relationship: The antero-posterior cuspal relationship is scored according to the protocol given in table 2 for each side in turn. The raw scores for both sides are added together.

(6) Calculation of the final scores

Once all of the raw scores have been obtained and multiplied by their respective weights, they are added together to yield a weighted summary score for a particular cast. The summed score is interpreted as following: pre-treatment scores give the treatment needs and complexity grades; end of treatment scores gives the acceptability; while pre-treatment scores - 4 x post-treatment scores gives the degree of improvement, Table 3.

Dental Aesthetic Index

The Dental Aesthetic Index (DAI) has been adopted by the World Health Organization as a cross-cultural

index¹⁵. It identifies deviant occlusal traits and mathematically derives a single score⁹. Its structure consists of 10 occlusal features of malocclusion; overjet, underjet, missing teeth, diastema, anterior openbite, anterior crowding, anterior spacing, largest anterior irregularity (mandible and maxilla), and anteroposterior molar relationship. The ten occlusal features are weighted on the basis of their relative importance according to a panel of lay judges. The codes and criteria are as follows:

- (1) Missing incisor, canine and premolar teeth: The number of missing permanent incisor, canine and premolar teeth in the upper and lower arches should be counted and recorded.
- (2) Crowding in the incisal segments: Both the upper and lower incisal segments should be examined for crowding. Crowding in the incisal segments is recorded as following: 0 - no crowding; 1 - one segment crowded; 2 - two segments crowded.
- (3) Spacing in the incisal segments: Both the upper and lower incisal segments should be examined for spacing. Spacing in the incisal segments is recorded as following: 0 - no spacing, 1 - one segment spaced, 2 - two segments spaced.
- (4) Diastema: A midline diastema is defined as the space, in millimetres between the two permanent maxillary incisors at the normal position of the contact points.
- (5) Largest anterior maxillary irregularity: Irregularities may be either rotation out of, or displacements from, normal alignment. The four incisors in the maxillary arch should be examined to locate the greatest irregularity.
- (6) Largest anterior mandibular irregularity: The measurement is the same as on the upper arch except that it is made on the mandibular arch.
- (7) Anterior maxillary overjet: The largest maxillary overjet is recorded to the nearest whole millimetre.
- (8) Anterior mandibular overjet: Mandibular overjet is recorded when any lower incisor is in crossbite.
- (9) Vertical anterior openbite
- (10) Antero-posterior molar relation: The right and left sides are assessed with the teeth in occlusion and only

Table 2 Protocol for occlusal trait scoring (Daniels and Richmond, 2000)

	Score	0	1	2	3	4	5
Aesthetic	1-10 as judged using IOTN AC						
Upper arch crowding	Score only the highest trait either spacing or crowding	Less than 2.0 mm	2.1-5.0 mm	5.1 to 9.0 mm	9.1-13.0 mm	13.1-17.0 mm	> 17.0 mm or impacted teeth
Upper spacing	Transverse relationship of cusp to cusp or worse	Up to 2.0 mm	2.1-5.0 mm	5.1-9.0 mm	>9.0 mm		
Crossbite	Transverse relationship of cusp to cusp or worse	No crossbite	Crossbite present				
Incisor open bite	Score only the highest trait either open bite or overbite	Complete bite	Less than 1 mm	1.1-2.0 mm	2.1-4.0 mm	>4.0mm	
Incisor overbite	Lower incisor coverage	Up to 1/3 tooth	1/3-2/3 coverage	1/3 up to full covered	Fully covered		
Buccal segment anteroposterior	Left and right added together	Cusp to embrasure relationship only, Class I, II, or III	Any cusp relation up to but not including cusp to cusp	Cusp to cusp relationship			



the largest deviation from the normal molar relation is recorded. The following codes are used: 0 - normal, 1 - half cusp, 2 - full cusp.

(11) Calculation of DAI scores

The regression equation used for calculating standard DAI scores is as follows: (missing visible teeth x 6) + (crowding) + (spacing) + (diastema x 3) + (largest anterior maxillary irregularity) + (largest anterior mandibular irregularity) + (anterior maxillary overjet x 2) + (anterior mandibular overjet x 4) + (vertical anterior openbite x 4) + (antero-posterior molar relation x 3) + 13. The severity of malocclusion is classified on the basis of the DAI scores as shown in the *table 4*.

Severity of malocclusion	Treatment indication	DAI score
No abnormality or minor malocclusion	No or slight need	< 25
Definite malocclusion	Elective	26-30
Severe malocclusion	Highly desirable	31-35
Very severe or handicapping malocclusion	Mandatory	≥ 36

Correlation among the indices

It is reported that there was a significant correlation between the various occlusal indices (AC, DHC, DAI and ICON). However, the correlation between the occlusal indices for the most part could best be described as weak-moderate except the correlation between AC and ICON^{3,16,17}. The proportion of orthodontic treatment needs varied somewhat depending on the occlusal indices used to determine orthodontic treatment needs. Lowest estimates of orthodontic treatment were observed when AC was used to assess orthodontic treatment need^{17,18}. This suggested that different proportion of orthodontic treatment need can be obtained depending on the occlusal indices employed. The agreement between the four indices could be described as poor to fair by calculating the Kappa value which indicated that different results can be obtained by using different indices in deciding whether a subject has an orthodontic treatment need or not¹⁹.

Correlation between occlusal indices and OHQoL

It is reported that there was a significant but weak correlation between OHQoL and the occlusal indices^{17,20}. Patients ascribed as having an orthodontic treatment need by occlusal indices had poorer OHQoL than those ascribed as not having an orthodontic treatment need¹⁷. Thus poor oral health related quality of life and orthodontic treatment need appear to coexist in the same population.

Summary

This study introduced 4 occlusal indices which were commonly used to assess the malocclusion. Among them, IOTN, DAI and ICON can be used to evaluate to assess the prevalence of malocclusion and determine orthodontic treatment need while ICON and PAR can

be used to assess treatment outcome. Moreover, ICON can also be used to assess the treatment difficulty. Although the occlusal indices assess the similar traits, the correlation can be best categorised as moderate. The agreement of determining the prevalence of malocclusion needs to be further investigated. The correlation between the occlusal indices and oral health related quality of life was also weak.

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MCHK CME Programme Self-assessment Questions

Please read the article entitled "Quality of Life and Orthodontic Treatment Need Related to Occlusal Indices" by Prof. Urban Hagg, and complete the following self-assessment questions. Participants in the MCHK CME Programme will be awarded 1 CME credit under the Programme for returning completed answer sheets via fax (2865 0345) or by mail to the Federation Secretariat on or before 31 October 2007. One credit will be awarded for the Dental Council's CPD Program for Practising Dentists. Answers to questions will be provided in the next issue of The Hong Kong Medical Diary.

Questions 1-10: Please answer T (true) or F (false)

- 1. Patients' occlusion might become worsen if patients with minor malocclusion receive orthodontic treatment.
2. Index of Orthodontic Treatment Need (IOTN) can used to assess orthodontic treatment outcome.
3. Dental Health Component (DHC) have five grades, grade 1 and 2 represent need for orthodontic treatment.
4. Index of Complexity, Outcome and Need (ICON) is used to assess orthodontic treatment Outcome.
5. The method of assessing molar relationship in both DAI and ICON is same.
6. If crossbite is presented in a patient's model, this patient will be recorded at least grade 4 from dental model by assessing with DHC.
7. The PAR index is used to assess orthodontic treatment need.
8. For PAR index, a patient has a change of PAR score from 40 to 10 would have higher improvement than a patient who has a change of PAR score from 15 to 3 when percent improvement is used to assess the degree of improvement.
9. Index of ICON can be used to assess orthodontic treatment complexity.
10. If a patient has crowding of 2mm in maxillary incisal segment while lower incisal has no crowding, the crowding will be scored as 2 when assessing by PAR index.

ANSWER SHEET FOR OCTOBER 2007

Please return the completed answer sheet to the Federation Secretariat on or before 31 October 2007 for documentation. 1 CME point will be awarded for answering the MCHK CME programme (for non-specialists) self-assessment questions. One credit will be awarded for the Dental Council's CPD Program for Practising Dentists.

Quality of Life and Orthodontic Treatment Need Related to Occlusal Indices

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Answers to September 2007 issue

Neuro-ophthalmology for General Practitioners: A Revision

- 1. C 2. D 3. A 4. E 5. C 6. B 7. A 8. D 9. E 10. E



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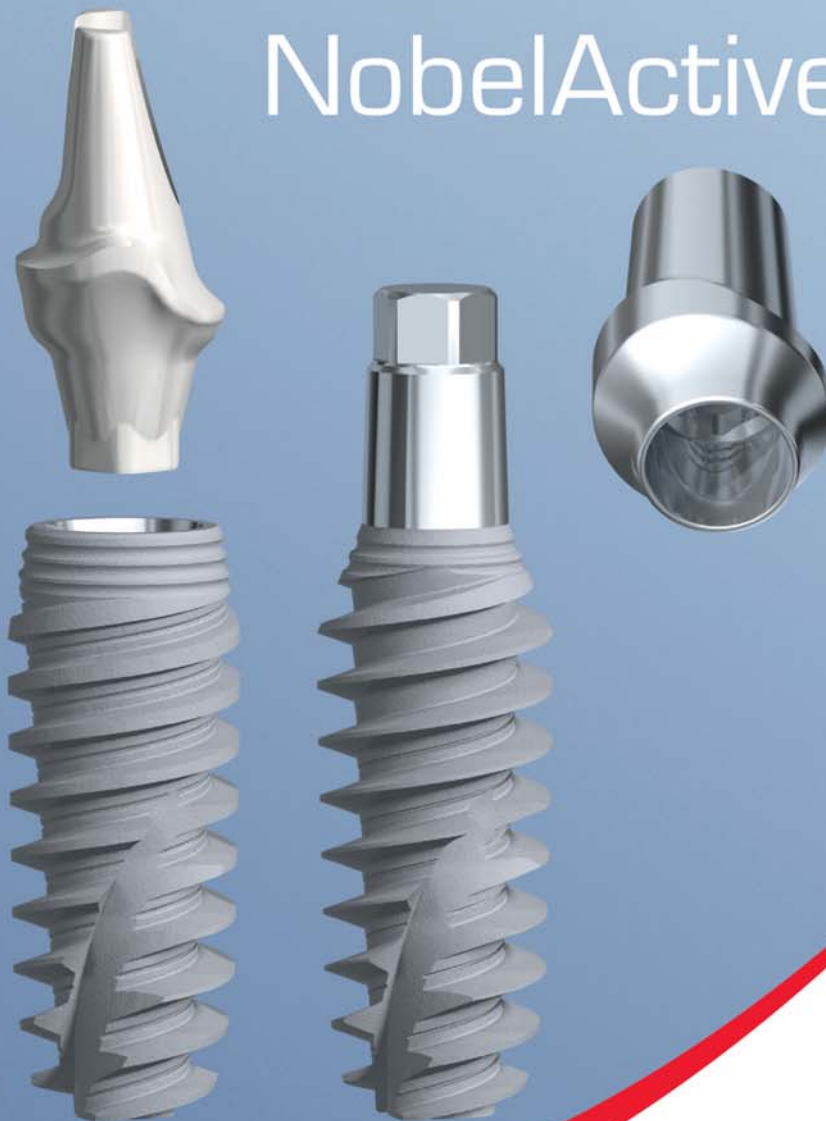
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Advances in Dental Implantology

Prof. Lim-kwong Cheung

Oral and Maxillofacial Surgery, Faculty of Dentistry, The University of Hong Kong



Prof. Lim-kwong Cheung

From last choice to first choice

Dental implant is gaining increasing acceptance by patients in Hong Kong. Many patients are actively seeking for dentists or dental specialists, who can provide dental implant treatment. With the increasing demand, many dentists attend continuing education courses of dental implantology being offered both locally and in overseas. There is wide acceptance in the dental teaching of adopting a minimal invasive approach on restorative dentistry and when combined with the improvement in reliability of implants, dental implant treatment has been transformed from the last choice to the first choice of treatment being offered to patients. This is particularly so in the last five years of this changing trend for single tooth replacement and replacing of the posterior edentulous space or free-end saddle situation.

Critical factors of success

With the increasing research both in basic science and clinical trials coupled with improvement in dental implant designs, the success rate of the dental implants has been steadily improving to over 95%. The success rate is better in denser bone and particularly in the anterior mandible; the success rate reaches 99% in most centres. The critical factors of success in the dental implant treatment are related to the training of surgeons, the design of implants, the intra-operative control of implant placement, the consideration of the occlusal loading and the long term maintenance.

It is of paramount importance that dentists or dental specialists should attend dental implant continuing educational courses or dedicated diploma or master degree courses. Training can significantly reduce most of the intra-operative errors and equip the dentists with the skill of managing complications if they ever happen. The design of implants has improved a lot by research on the coating of the dental implants that increases the ratio of bone to implant contact; the configuration of implants in achieving better primary stability that is so critical to the osseointegration process; the range of prosthetic abutments that can handle any implant mal-alignment. The intra-operative control of implant placement is much better by the refinement of drilling machines in controlling the drill speed and torque control in reducing the overheating of the bone surrounding the implants; the control of water irrigation or the availability of internal implant

irrigation systems in further minimising the rise in bone temperature; the sharpness of drills by having more disposable drills being available; custom-made surgical splint in defining the implant location and angulation based on CT data rather than plain radiography.

The dentists and prosthodontists are more conscious of the occlusal loading on the dental implant prosthesis. In Hong Kong, most patients demand for dental implant fixed bridges and that require good precision in dental implant alignment and the implants to be linked up in triangular configuration in enhancing the stability of the implant support bridges to resist from the lateral displacement forces. The choice of acrylic, porcelain or newer materials depend on both the occlusal loading and aesthetic requirements.

Long term maintenance of dental implants is gaining importance as the main factor affecting the long term prognosis of dental implants. Patients should be well instructed in maintaining oral hygiene around the dental implants. A lot of implant cleansing aids are more widely available in line with the growing demand of dental implants. The presence of attached gingiva is being recognised as important for the maintenance of good oral hygiene in reducing the incidence of periodontal disease around the implants (peri-implantitis). The patients are better informed in committing to regular oral hygiene visits every 6 months and annual check-up with either the surgeons or the prosthodontists.

Peri-implant surgery

The loss of teeth will result in a concomitant resorption of the alveolar bone and with time, there may be insufficient bone height or width for the placement of implants. That is when the peri-implant surgeries come in [??and this is being increasingly known adequate implant length and width are important to improve the longevity of dental implants]. Various bone augmentation methods from simple onlay bone graft for small depression, inlay bone graft for sandwich osteotomy to the maxillary sinus floor augmentation are being taught to dentists or surgeons in enhancing the bone volume.

When there is a lack of soft tissue due to atrophy or from ablative surgery, vestibuloplasty and palatal



graft transplant are gaining wider acceptance. The use of free gingival graft transplant has been developed recently in our discipline and was found to be technically easier and produced less morbidity to the patients. Different peri-implant surgeries may be combined in addressing the problems related to either the bone or soft tissue deficiency around the implant placement and in implant maintenance.

Development in image guided implantology

Image guided implant placement has undergone revolutionary development in the last five years. There are essentially two main types of image guided implant surgery. Both types involve the implant planning on dedicated softwares to define the position and angulation of the implants to be placed, the avoidance of contacting the inferior alveolar nerve or the intrusion into the maxillary sinus. The difference is one is a real time navigational implant surgery whereas the second one is the insertion of implants with the use of a stereolithographic surgical splint. Both systems have benefits and drawbacks.

The benefits of the real time navigation is that the implant placement is being guided via computer on-screen guidance and intra-operative adjustment can be made if the implant position in bone is found to deviate from the computer planned position (Fig. 1). The drawbacks are the expensive machine and long calibration time that makes the productivity not very economical. The system is good for teaching centre as training tool rather than being used in busy clinics. In contrast, the computer designed surgical splints enhance the speed of implant placement tremendously. Two systems are widely used in Hong Kong and they are the Nobel Guide (Fig. 2) and Materialise SimpDent. In the Nobel Guide system, the time for placement of six implants with fitting of pre-fabricated temporary bridge on a maxilla can be done within one hour and a patient can return back to normal diet with minimal swelling is a big step forward. The drawback is that if there is any error in the computerised planning or splint fabrication, the surgeons cannot make any intra-operative adjustment unless the surgeons abandon the use of the splint at all and the implants will ultimately be wrongly placed.

Extension of scope

In addition to the placement of the dental implants on the alveolar bone, very long implants of 40-55mm are available to insert through the palatal bone to the zygoma. These zygomatic implants are extremely reliable and with the advantage of avoiding any sinus grafting and bone graft.

Implants can be placed extra-orally for supported facial or ear prostheses. With the navigational surgery, this will enhance the accuracy of implant placement. Research is being undertaken to apply computer aided design and computer aided manufacturing method for facial prosthesis construction.

Future development of dental implantology

Tremendous amount of implant researches are being done and there are a few dedicated international dental implant journals with good impact factors available. Product improvement such as the coating of the implants with bone growth factors are being actively researched in an attempt to increase the speed of implant osseointegration and to enhance the longevity of the implants.

Research in substituting the titanium material with ceramic is being pursued in order to reduce the exposure of the metallic implant body above the gingival level. This is to a certain extent being improved by the recently developed zirconium material, which is opaquely white and extremely hard and is a suitable material for the abutment construction. A material of better translucency is recently available and is composed of alumina but is considered too brittle for posterior bridge construction. There is little doubt for further search of a biological compatible material simulating the tooth colour for dental implants. We hope that this will not be too long before the opportunity of tissue engineered teeth by cell culture methods.



Fig. 1: Real time navigation of dental implant placement with the Image Guided Implantology system

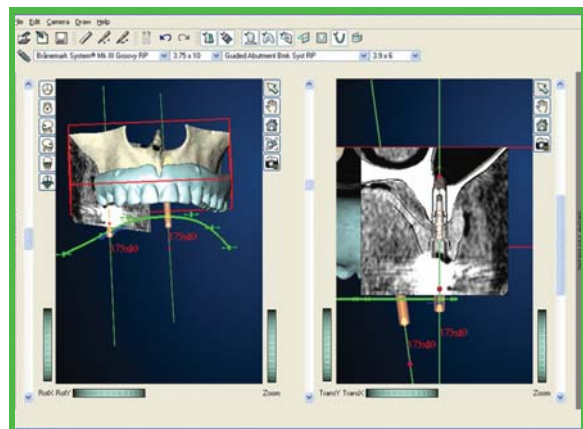


Fig. 2: Implant planning on maxilla using the computer software of Nobel Guide

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Open Joint Surgery for Temporomandibular Joint (TMJ)

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Dr. Tak-kun Chow

Introduction

Temporomandibular Joint (TMJ) disorders are a collective term describing clinical problems of the temporomandibular joint (arthrogenic) and associated structures (e.g. masticatory muscle disorders) or both. In Hong Kong about 1 % of the Chinese population had suffered from chronic TMJ related jaw pain¹. Whilst, the spectrum of TMJ disorders could range from congenital, developmental problems to the commonly seen degenerative joint disease. It has been estimated that the indication for surgical treatment of TMJ and related structures might vary from less than 3% to 17%². The role of open joint surgery will be discussed in this article and illustrated by clinical cases.

Indications

1. Degenerative Joint Disease
2. Condylar fractures
3. Joint intra-capsular pathology i.e. osteochondroma, chondromatosis
4. Tumour involvement of condylar head by orofacial tumour
5. Bony Ankylosis resection and joint reconstruction
6. Peri-articular indications e.g. recurrent dislocation

Investigation

Immune factors analysis sometimes is necessary to rule out systemic involvement of TMJ such as rheumatoid arthritis etc. However, imaging is the essence to establish a working diagnosis of the TMJ disorders. Panoramic X-ray (Fig. 1) is a standard screening film for TMJ disorders. Most of the bony degeneration could further be illustrated by the CT imaging (Fig 2), particularly the use of 3-D image reconstruction. Moreover, bone scanning and MRI are the next cascade of investigation to provide a more physiological and dynamic understanding of the joint condylar status.

Surgical Challenge

The challenge of open surgery in temporomandibular joint region is not only due to the complexity of the joint anatomy, its adjacent vital structures such as the extracranial course of facial nerve, abutting auditory canal and its immediate medial territory - infratemporal fossa that poses extreme caution to the operating

surgeon during surgical dissection. In addition, the molecular pathophysiology of the intracapsular tissue³ and its intimacy with functional jaw occlusion demands a comprehensive appraisal of the cranio-cervicomandibular mechanics.

Treatment Goals

For instance, the therapeutic goals for a successful surgical treatment should comprise of:

1. Relieve of pain and limit the progression of degenerative disease
2. Improve range of jaw motion
3. Restoration of the deranged anatomy and functional occlusion
4. Removal of pathology
5. Restoration of condylar growth by biological joint replacement after bony ankylosis resection

Surgical Approach

The mainstay of surgical access is the pre-auricular approach (Fig.3) that the incision is placed just in front of the tragus with a small superior component at the temporal hair bearing region. In order to achieve an inconspicuous scar (Fig 4), the inferior limb of incision could rest on the rim of tragus skin or placed total endaurally⁴. In case of extensive exposure of periarticular complex or the necessity for temporal muscle flap harvesting, temporal extension or even coronal incision for bilateral procedure is sometimes necessary. Oblique incision to the superficial layer of the deep temporal fascia to avoid the injury of the temporal branch of the facial nerve was described by Al-Kayat and Bramley⁵ for skin flap reflection. Meticulous dissection of joint space is best achieved under magnification for thorough examination of the status of the articulating disc. In case of meniscus resection or after bony ankylosis resection, reconstruction with temporal muscle/fascial flap^{6,7} (Fig 5) is the immediate available local flap of choice other than transplantation of auricular cartilage or other allograft. Medial retraction is of utmost important in TMJ operation especially during bony ankylosis resection (Fig 6) to obviate devastating complications that might happen if infringement of vital skull base structures such as internal carotid artery or cranial fossa perforation. Recently image-guided navigation and virtual-model planning⁸ could open up a new horizon for major TMJ surgical intervention.

Case Illustration

A 27 year-old Female suffered from chronic functional pain and discomfort of right TMJ for more than a year. At age 19, she had a course orthodontic treatment to correct her large anterior open bite malocclusion instead of surgical correction. In recent years, the patient developed chronic functional pain at right TMJ and limited jaw opening . She had undergone a series of image investigation including arthrogram, bone scan and CT in Australia that confirmed osteoarthritis. Nevertheless she did not respond to courses of conservative therapy. She was then referred for definitive management in mid-2006. MRI was ordered showing "crumpling" of the articular disc with loss of normal biconcave configuration which was non-reducible in the right joint (Fig 7). Finally, open arthrotomy of the right TMJ was decided with standby temporalis muscle flap for meniscus replacement if necessary. Intra-operative view showed protruding osteophytes from the superior aspect of the condyle and the meniscus was totally displaced anteriorly (Fig 8). The retrodiscal tissue was found to be hyperaemic and congested (Fig 9). Eventually high condylar shave and disc repositioning by lateral pterygoid muscle release was performed. After one year, pain-free joint function and good range of movement was fully achieved with an inconspicuous pre-auricular scar.

Conclusion

Open surgical approaches to TMJ osteoarthritis including internal derangements must now be regarded as the tertiary line of care following conservative protocol or even arthroscopic procedures⁹. As an evidence-based practice strategy to review the Temporomandibular literatures critically, more studies show surgical treatments to provide recognised benefit to patients refractory to non-surgical therapies^{10,11}. Although there are less disputes for open surgery in the management of joint pathologies, bony ankylosis release; the timing of surgery and reconstruction methods would be of academic interest for clinical research. Nevertheless, establishment of sound diagnosis with thorough understanding of the pathophysiology and regional anatomy are the pre-requisites for successful open joint surgery.



Fig1. OPG shown right condylar osteochondroma mass



Fig 2. Coronal CT shown severe osteoarthritic change of right condyle



Fig 3. Pre-auricular incision



Fig 4. Inconspicuous scar on tragus rim

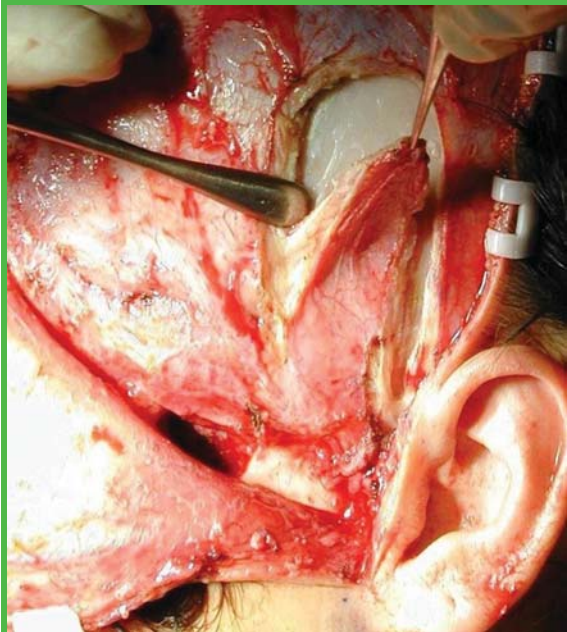


Fig 5. Harvesting of temporalis muscle flap



Fig 6. Excision of bony ankylosed mass with meticulous medial retraction



Fig 7. MRI shown non-reducible severely deformed meniscus



Fig 8. Peri-operative view of dislocated disc

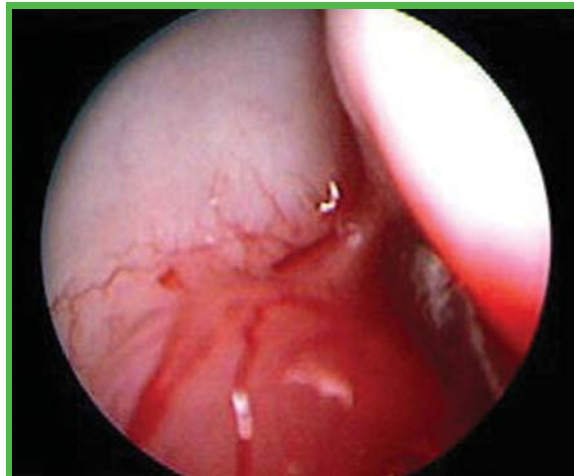


Fig 9. Endoscopic view showing hyperaemic retrodiscal tissue

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Application of Laser in Periodontics: A New Approach in Periodontal Treatment

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Introduction

The use of lasers for treatment has become a common phenomenon in the medical field. The first laser device was made by Maiman¹ in 1960, based on theories derived by Einstein in the early 1900s. The application of a laser to dental tissue was reported by Stern and Sognaes² and Goldman et al.³ in 1964, describing the effects of ruby laser on enamel and dentine with a disappointing result. However, with the recent advances and developments of wide range of laser wavelengths and different delivery systems, researchers suggest that lasers could be applied for the dental treatments including periodontal, restorative and surgical treatments.

Currently, numerous laser systems are available for dental use (Table 1). Neodymium-doped:Yttrium-Aluminium-Garnet (Nd:YAG), carbon dioxide (CO₂) and semiconductor diode lasers have already been approved by the United States Food and Drug Administration for soft tissue treatment in oral cavity. The Erbium-doped:Yttrium-Aluminium-Garnet (Er:YAG) laser was approved in 1997 for hard tissue treatment in dentistry and recent studies and developments reported many positive results. This suggests that the Er:YAG laser system is a promising apparatus, which will be able to revolutionise and improve clinical dental practice, in particular periodontal treatment.

Table 1. Current laser wavelengths commonly used in clinical dentistry

Type	Active Medium	Wavelength(nm)	Clinical Application	Company
Gas Lasers	Carbon Dioxide (CO ₂)	10,600	Soft tissue incision and ablation Subgingival curettage	Deka Lumenis
Diode Lasers	Indium-Gallium-Arsenide-Phosphide (InGaAsP) Gallium-Aluminium-Arsenide (GaAlAs) Gallium-Arsenide (GaAs)	655-810-980	Caries and calculus detection Soft tissue incision and ablation Subgingival curettage Bacterial decontamination	Biolase Elexxion KaVo Odyssey Sirona
Solid-state Lasers	Neodymium-doped:Yttrium-Aluminium-Garnet (Nd:YAG)	1,064	Soft tissue incision and ablation Subgingival curettage Bacterial decontamination	Deka Fotona Periolase
	Erbium-doped:Yttrium-Aluminium-Garnet (Er:YAG)	2,940	Soft tissue incision and ablation Subgingival curettage Scaling and root debridement	Deka Elexxion Fotona Hoya KaVo Lumenis
	Erbium-Chromium doped:Yttrium-Selenium-Gallium-Garnet (Er,Cr:YSGG)	2,780	Modification of hard tissue surfaces Hard tissue ablation Bacterial decontamination	Syneron Biolase

Application of Laser for Periodontal Treatment

Scaling and root planning is the traditional method of controlling subgingival microflora for management of periodontal diseases. The objectives of subgingival debridement are to eliminate not only the adherent and unattached bacterial plaque, but also deposits of calculus. However, removal of calculus using conventional hand instruments has been reported to be incomplete and rather time consuming⁴. In order to improve the effectiveness and efficiency of root surface debridement, various devices such as sonic and ultrasonic scalers, and more recently lasers have been used (Figure 1). Many studies have demonstrated that sonic and ultrasonic instrumentation, when compared with manual instrumentation, results in equal and superior treatment outcomes.

The use of lasers for periodontal treatment becomes more complicated because the periodontium consists of both hard and soft tissues. Among the many lasers available, high power lasers such as CO₂, Nd:YAG and diode lasers can be used in periodontics because of their excellent soft tissue ablation and hemostatic characteristics. However, when they are applied to the root surface or alveolar bone, carbonisation and thermal damage have been reported. Therefore the use of these lasers is limited to gingivectomy, frenectomy and similar soft tissue procedures including the removal of melanin pigmentation of gingiva.

Recently, Er:YAG and Erbium-Chromium doped:Yttrium-Selenium-Gallium-Garnet (Er,Cr:YSGG) laser scaling was introduced as an alternative or an adjunctive to conventional scaling and root debridement (Figure 2 and 3). Of all the lasers available, the absorption of the Er:YAG and Er,Cr:YSGG lasers in water is nearly the highest. These lasers effectively ablate all biologic tissues that contain water molecules. The erbium laser group has emerged as a promising laser system for periodontal indications.

Several clinical studies have reported the application of Er:YAG laser for periodontal treatment. Watanabe et al. demonstrated efficient calculus removal with no side effects and uneventful reduction of pocket after Er:YAG scaling⁵. Schwarz et al. reported that equal or slightly better results were observed at six months after laser treatment of periodontal pockets, compared to conventional mechanical debridement using hand scalers and found significantly higher reduction of bleeding on probing scores and improvements in clinical attachment



level after laser treatment⁶. Schwarz et al. also demonstrated that nonsurgical periodontal treatment with laser alone and a combination of Er:YAG laser and scaling and root planning using hand instruments may result in clinically and statistically significant improvements in the clinical parameters with no difference between two treatments, 12 months after treatment⁷.

Er:YAG laser was also proposed for the implant maintenance, taking advantage of its bactericidal or decontamination effect. Peri-implant infection results in inflammation of the surrounding soft tissues and can induce a breakdown of the implant supporting alveolar bone. It is associated with the presence of a subgingival microflora, which seems to be quite similar to that in periodontal pockets and contains a large variety of Gram-negative anaerobic bacteria. Matsuyama et al. performed debridement of implant abutment surface by Er:YAG laser and reported effective removal of plaque and calculus without producing damage to the implant surface⁸. Also, Kreisler et al. observed a nonexcessive heat generation on the implant surfaces and effective decontamination by means of the Er:YAG laser⁹.

Even though successful experimental results and clinical results have been reported so far with the Er:YAG laser, further studies are required to better understand the effects on periodontium for its safe and effective application during the periodontal treatment. Therefore, randomised controlled clinical trials and more basic studies have to be encouraged and performed to determine the most optimal and safest parameters for laser treatment.



Figure 1. Different laser devices (Nd:YAG on the left, Er:YAG in the centre and combined Diode and Er:YAG on the right).

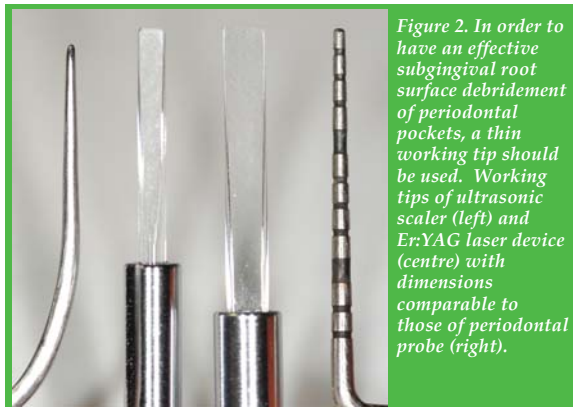


Figure 2. In order to have an effective subgingival root surface debridement of periodontal pockets, a thin working tip should be used. Working tips of ultrasonic scaler (left) and Er:YAG laser device (centre) with dimensions comparable to those of periodontal probe (right).

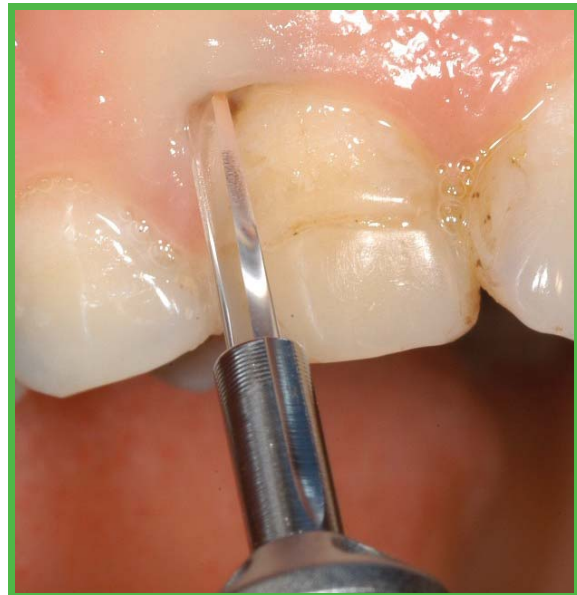


Figure 3. Subgingival scaling with a laser device (Er:YAG).

Advantages and Disadvantages

Advantages of laser treatment in periodontics are effective and efficient soft and hard tissue ablation with a greater hemostasis, bactericidal effect, minimal wound contraction, minimal collateral damages with reduced use of local analgesia. In addition, the small popping sound of the lasers in action with Er:YAG seems to produce less stress to patients than the high pitch vibration sound of most of the ultrasonic devices.

Despite numerous advantages of using lasers, the use of laser also has disadvantages that require precautions to be taken during clinical application. Laser irradiation can interact with tissues even in the non-contact mode, which means that laser beams may reach the patient's eye and other tissues surrounding the target in the oral cavity. Clinicians should be careful to prevent inadvertent irradiation to these tissues, especially to the eyes. Protective eyewear specific for the wavelength of the laser in use must be worn by patient, operator, and assistant¹⁰.

It is recommended that dental laser users to attend certification courses provided by some dental laser organisations and follow laser safety guidelines such as the Laser Code of Practice from the Hong Kong Surgical Laser Association. A good understanding in laser wavelength characteristics, tissue interaction and laser device specification provide a platform for achieving the best results.

Finally, the cost and size of laser device still constitute an obstacle for clinical application of the lasers. Laser devices like Er:YAG and Er,Cr:YSGG are usually cumbersome and rather difficult to set up in small dental surgeries in Hong Kong.

Future Developments

There is a great potential for laser systems to be developed further to include additional features and



functions. The Alexandrite laser is a solid-state laser, which could remove dental calculus selectively¹¹. Mechanism of selective ablation has not been clarified yet. The development of this laser for clinical use is widely expected due to its excellent ability for selective calculus removal from the tooth structure.

Conclusion

In summary, laser treatment is expected to serve as an alternative or adjunctive to conventional mechanical periodontal treatment. Currently, among the different types of lasers available, Er:YAG and Er,Cr:YSGG laser possess characteristics suitable for dental treatment, due to its dual ability to ablate soft and hard tissues with minimal damage. In addition, its bactericidal effect with elimination of lipopolysaccharide, ability to remove bacterial plaque and calculus, irradiation effect limited to an ultra-thin layer of tissue, faster bone and soft-tissue repair, make it a promising tool for periodontal treatment including scaling and root surface debridement.

Finally, in order to have a successful periodontal treatment in long term, patients need to be motivated. It is not so much the technology but the motivation and psychology that matter when it comes to practice of oral hygiene before, during and after the periodontal treatment to maintain a good and stable periodontal condition.

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07/10/2007 A & B Start	A1-A2 A3-A4 A5-A1 A2-A3 A4-A5 B1-B3 B2-B4 B5-B3 B1-B4 B2-B5	17:00-17:35 17:35-18:10 18:10-18:45 18:45-19:20 19:20-19:55 19:55-20:30 20:30-21:05 21:05-21:40 21:40-22:15 22:15-22:50	Friendly Match FMSHK Team vs TNS Team Opening Ceremony 7/10/2007 2pm-4pm Invitation to ALL Team captains to attend A1 Alcon HK A2 HK Medical Association (T1) A3 FMSHK (QEH) A4 HK Ophthalmological Society (White T) A5 HK Dental Association B1 HK Medical Association (Team 2) B2 HK Orthopaedic Association B3 Medical Student Union The Chinese University of HongKong B4 HK Ophthalmological Society (Blue T) B5 Medical Student Union The University of Hong Kong	A1 B1 A2 B2 A3 B3 A4 B4 A5 B5 C1 D1 C2 D2 C3 D3 C4 D4 C5 D5
13/10/2007 C & D Start	C1-C2 C3-C4 C5-C1 C2-C3 C4-C5 D1-D3 D2-D4 D5-D3 D1-D4 D2-D5	17:00-17:35 17:35-18:10 18:10-18:45 18:45-19:20 19:20-19:55 19:55-20:30 20:30-21:05 21:05-21:40 21:40-22:15 22:15-22:50	C1 Zuellig Pharma C2 Solvay Pharma C3 Pfizer Corp HK (Team 2) C4 Jacobson Medical (HK Team) C5 Bayer (Team 1) D1 AstraZeneca HK D2 Bayer (Team 2) D3 Janssen Pharmaceutica D4 Jacobson Medical (KLN Team) D5 Pfizer Corp HK (Team 1)	C1 D1 C2 D2 C3 D3 C4 D4 C5 D5
20/10/2007	D1-D2 D3-D4 D5-D1 D2-D3 D4-D5 C1-C3 C2-C4 C5-C3 C1-C4 C2-C5	17:00-17:35 17:35-18:10 18:10-18:45 18:45-19:20 19:20-19:55 19:55-20:30 20:30-21:05 21:05-21:40 21:40-22:15 22:15-22:50	D1 AstraZeneca HK D2 Bayer (Team 2) D3 Janssen Pharmaceutica D4 Jacobson Medical (KLN Team) D5 Pfizer Corp HK (Team 1)	C1 D1 C2 D2 C3 D3 C4 D4 C5 D5
21/10/2007	B1-B2 B3-B4 B5-B1 B2-B3 B4-B5 A1-A3 A2-A4 A5-A3 A1-A4 A2-A5	17:00-17:35 17:35-18:10 18:10-18:45 18:45-19:20 19:20-19:55 19:55-20:30 20:30-21:05 21:05-21:40 21:40-22:15 22:15-22:50	D1 AstraZeneca HK D2 Bayer (Team 2) D3 Janssen Pharmaceutica D4 Jacobson Medical (KLN Team) D5 Pfizer Corp HK (Team 1)	A1 B1 A2 B2 A3 B3 A4 B4 A5 B5

The winner of teams of each section position will qualify to the final knock-out match, The teams with position 2, 3, 4, and 5 will play the winner of 2, 3, 4 and 5 positions

27/10/2007 遺才賽	A5-B5 C5-D5 A4-B4 C4-D4 A3-B3 C3-D3 W A5/B5-WC5/D5 W A4/B4-WC4/D4 W A3/B3-WC3/D3	17:00-17:35 17:35-18:10 18:10-18:45 18:45-19:20 19:20-19:55 19:55-20:30 20:30-21:05 21:05-21:40 21:40-22:15	W A5/B5=winner of A5-B5(match1) W C5/D5=winner of C5-D5(match2) W A4/B4=winner of A4-B4(match3) W C4/D4=winner of C4-D4(match4) W A3/B3=winner of A3-B3(match5) W C3/D3=winner of C3-D3(match6)	A1 B1 A2 B2 A3 B3 A4 B4 A5 B5 C1 D1 C2 D2 C3 D3 C4 D4 C5 D5
28/10/2007 Knock-Out match & Prize Ceremony 冠亞季軍賽	A2-B2 C2-D2 A1-B1 C1-D1 W A2/B2- W C2/D2 L A1/B1- L C1/D1 W A1/B1- W C1/D1	17:00-17:35 17:35-18:10 18:10-18:45 18:45-19:20 19:20-19:55 19:55-20:30 20:30-21:05	W A1/B1=Winner of A1-B1 W C1/D1=Winner of C1-D1 W A2/B2=Winner of A2-B2 W C2/D2=Winner of C2-D2 L A1/B1=Loser of A1-B1 L C1/D1=Loser of C1-D1	A1 B1 A2 B2 A3 B3 A4 B4 A5 B5 C1 D1 C2 D2 C3 D3 C4 D4 C5 D5

Co-Chairman: Mr. Nelson Lam and Dr. Kingsley Chan
Secretariat: Federation of Medical Societies of Hong Kong
Contact Ms Sue Cheng, Executive Manager Tel: 2821 3511
Fixture Planner by Dr. Liu Wing Hong - Total of 6 days 56 matches

17-Sept-07



Dermatological Quiz

Dr. Ka-ho Lau

MBBS(HK), FRCP(Glasg), FHKCP, FHKAM(Med)
Yaumatei Dermatology Clinic, Social Hygiene Service



Dr. Ka-ho Lau



Fig 1a
Itchy lesions at the forearms,
wrists and palms



Fig 1b
Lesions in the buccal cavity and
the lips

This 40-year-old woman developed these very itchy lesions at her forearms, wrists and palms for the last two months. Similar lesions were found in her lower limbs and trunk. She also noticed some lesions occurred at her lips and inside her mouth. She enjoyed good past health and was not taking any medication.

Questions:

1. What is your diagnosis or differential diagnoses?
2. How will you confirm the clinical diagnosis?
3. How will you treat this woman?

(See P. 30 for answers)



The Federation of Medical Societies of Hong Kong

Members' Benefits

We are pleased to announce a new benefit for our members. The Federation, in cooperation with Kingsway Concept Limited, will offer a discount on petrol and diesel purchases of HK\$0.9/litre from **Caltex, Shell, Esso and Sinopec** to members and their families of all Ordinary and Associate member societies under the Federation. Please contact our Secretariat at 2527 8898 and info@fmshk.org or Kingsway Concept Limited at 2541 1828 and kingswayconcept@yahoo.com for further details and terms for this offer.

Joint Scientific Meeting on Rehabilitative Medicine with the Chinese Medical Association, Guangzhou

The Federation of Medical Societies of Hong Kong and the Chinese Medical Association jointly organised a scientific meeting on Rehabilitative Medicine on 1st, September 2007 in Guangzhou. A total of 14 speakers from Hong Kong and the Mainland shared and exchanged ideas on advances and applications of rehabilitation in various specialties. Topics included rehabilitation related to Swallowing difficulty, Pulmonary diseases, Chronic Pain Syndrome and Geriatric Hip Fracture. The meeting was a success with an attendance of more than 280 medical and health-care professionals at this one-day event. The participants were very interested in the topics, which was followed by fruitful discussions. The talks provided useful guidelines for clinical management, and generated ideas for future studies.



由左至右：華桂茹教授(中華醫學會物理醫學與康復學會主任委員)，方道生醫生(香港醫學組織聯會會長)



由左至右：竇祖林教授(廣東省醫學會物理學與康復學)，錢炳航醫生(香港骨科醫學會代表)，方道生醫生(香港醫學組織聯會會長)，洪君毅醫生(香港醫學組織聯會教育委員會主席)，蔣忠想醫生(香港心臟專科學院秘書長)，黃景新醫生(香港物理治療學會委員)，黃慕蓮醫生(美國胸肺學院-香港及澳門分會秘書長)

The Federation Soccer Five Tournament 2007

The kick-out matches to determine which teams from Group C and D will qualify for the Soccer Five Tournament were held on 9 September 2007 at the Hong Kong International Trade and Exhibition Centre (HKITEC), Kowloon Bay. The results are shown in the table and the Opening Ceremony and first Tournament matches will be held on 7 October 2007, 7:00pm at HKITEC.



Qualifying Teams for The Federation Soccer Five Tournament 2007

Group A		Group B		Group C		Group D	
1	Alcon HK	1	HK Medical Association (Team 2)	1	Zuellig Pharma	1	AstraZeneca HK
2	HK Medical Association (Team 1)	2	HK Orthopaedic Association	2	Solvay Pharma	2	Bayer (Team 2)
3	FMSHK (QEH)	3	Medical Student Union The Chinese University of HK	3	Pfizer Corp HK (Team 2)	3	Janssen Pharmaceutica
4	HK Ophthalmological Society (White Team)	4	HK Ophthalmological Society (Blue Team)	4	Jacobson Medical (HK Team)	4	Jacobson Medical (KLN Team)
5	HK Dental Association	5	Medical Student Union, The University of HK	5	Bayer (Team 1)	5	Pfizer Corp HK (Team 1)



Central & Western Health Festival 2007

HKFMS Foundation Limited will be one of many organizations participating in the Central & Western Health Festival 2007 held at 6/F, Smithfield Sports Complex, Kennedy Town on 29 and 30 September 2007. HKFMS Foundation Limited will occupy 4 exhibition booths on Elderly Health and Screening to promote the health message and education.



Committee members - front row from left: Mr. Peter To (FMSHK), Mr Nelson Lam (FMSHK), Dr Raymond Lo (Committee Chairman, FMSHK), Ms Sue Cheng (FMSHK)
 Back row from left: Ms Christina Yau (Hong Kong Occupational Therapy Association), Ms Gloria Hung (Comprehensive Oncology Centre, Hong Kong Sanatorium & Hospital), Mr Stanley Lee (Quality Health Care Elderly Services), Mr Samuel Chan ((Hong Kong Occupational Therapy Association), Ms Joyce Chiu (Eli Lilly Asia Inc), Mr Eddy Fok and Ms Wyeman Tan (Eisai (Hong Kong) Co. Ltd)

Society News



News from Member Societies:

The Hong Kong Society of Community Medicine

Updated office-bearers for the year 2006-2007 are as follows: President: Dr. PY LAM, Chairperson: Dr. Tina MOK, Vice Chairperson: Dr. Liza TO, Hon Secretary: Dr. Terence CHEUNG, Hon Treasurer: Dr. YL LAW

American College of Chest Physicians Hong Kong and Macau Chapter Ltd.

Updated office-bearers for the year 2007-2009 are as follow: President: Dr. CHU Chung-ming, Vice-President: Dr. CHAN W. M. Johnny, Secretary/ Treasurer: Dr. WONG Mo-lin, Maureen.

Society of Anaesthetists of Hong Kong



Dr. Steven Wong
President

The Society of Anaesthetists of Hong Kong is one of the oldest medical societies in Hong Kong. Founded in 1954 by Dr. Z. Lett, our Society has nurtured the development of the specialty of anaesthesia in Hong Kong. Over the past half a century, the Society has strived to uphold the standard of practice of anaesthesia to attain international recognition.

After the establishment of the Hong Kong College of Anaesthesiologists in 1989 as the official organization to provide professional training and examination to our trainees, the Society has now focused our attention to providing continued education to our fellows, providing the public with knowledge related to the field of anaesthesia, critical care and pain medicine, and fostering fraternity within our specialty as well as with our sister societies both locally and internationally.

The Society holds an annual scientific meeting, jointly with our College. The theme this year is "Expanding the Boundaries". It will be held on 17 - 18th November. We are also glad to announce that we will host the New York School of Regional Anesthesia (NYSORA) 2nd Pan-Asian Symposium on Regional Anaesthesia and Pain Medicine on 12 - 13th January 2008. For more updated information on our activities, please visit our website at www.sahk.hk.



HONG KONG SOCIETY OF CLINICAL CHEMISTRY (香港臨床生化學會)

The Hong Kong Society of Clinical Chemistry was founded in 1983 by a group of local Clinical Chemistry professionals with the objective of promoting the continuing education of medical, scientific and technical staff engaged in the practice of the discipline in Hong Kong. The Society is privileged to have members working in major public and private health care institutions in Hong Kong. The Society therefore stands a unique position in the development of an effective networking among the health care professionals working in the region. With the advent of peer-regulated professional conducts and practice for major medical disciplines, the Council of the Society has established various standing committees viz Education, Grants and Award Committees, Editorial Board, and a Board of Accreditation to promote the advancement of the science and practice of Clinical Chemistry in Hong Kong. Scientific meetings and other education activities in the form of lectures, seminars, workshops, discussion groups, as well as international congresses are organized by the Society for facilitating and enhancing effective networking, scientific exchange, experience and expertise sharing, and collaboration amongst laboratory professionals within and beyond our region.

The society has 350 members as of January 2007. "HKSCC Communications" the scientific bulletin of the Society, are published periodically and is available on the Society's website: <http://www.medicine.org.hk/hksc>.

For more information, please contact Ms Lydia Lit, Hon Secretary, c/o Dept of Chemical Pathology, Prince of Wales Hospital, Shatin, Hong Kong (Tel: 26232358, Fax: 26365090, email: lcwlit@cuhk.edu.hk)

Answer to Dermatological Quiz

Answer :

1. There are multiple itchy erythematous small polygonal violaceous flat-topped lichenoid papules symmetrically affected the patient's forearms, wrist and palms. The surface of the lesions at her right wrist showed a shiny network of fine white lines called "Wickham's striae". Linear papules are seen on the palms which exhibit the Koebner phenomenon- occurrence of active lesions at sites of previous minor trauma presumably due to scratching to relieve itchiness. The characteristic white lacy pattern on the buccal mucosa and lips further support the clinical diagnosis of lichen planus (LP). There are different variants of lichen planus such as annular, atrophic, bullous, hypertrophic, linear and actinic LP. The rapid onset of widely distributed disseminated lesions in this woman is most compatible with eruptive form of LP. Nail changes, which affect approximately 10% of patients with LP, are helpful in supporting the clinical diagnosis. More characteristic nail abnormalities include thinning of the nail plate with longitudinal ridging and pterygium formation. Differential diagnoses include other papulosquamous diseases such as lupus erythematosus, psoriasis and pityriasis rosea
2. Skin biopsy is confirmatory to the clinical diagnosis. The histological features are hyperkeratosis and wedge shaped hypergranulosis in the epidermis. Colloid bodies representing apoptotic or dyskeratotic keratinocytes are usually present in the lower levels of the epidermis. There are irregular acanthosis with "sawtooth" appearance and liquefactive degeneration of the basal cell layer. The superficial dermis is infiltrated by a band-like lymphocytic infiltrate at the dermo-epidermal junction. There is often incontinence of pigment with multiple dermal melanophages.
3. The standard therapies include potent topical steroid and oral antihistamine to reduce pruritus. In severe acute cases, systemic corticosteroid, in a dose of 15 to 20mg for a period of 2-6 weeks then gradually tapered over several weeks, are sometimes used. Other treatment options include topical immunomodulator, intralesional steroid, oral griseofulvin, oral cyclosporine and phototherapy. It is difficult to evaluate the efficacy of different forms of therapy as the majority of reports are from small series of patients. In addition, spontaneous remission of cutaneous and oral LP can occur after varying periods of time.

Dr. Ka-ho Lau

MBBS(HK), FRCP(Glasg), FHKCP, FHKAM(Med)
Yaumatei Dermatology Clinic, Social Hygiene Service



Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				* HKMA Council Meeting		
	1	2	3	4	5	6
* HKMA Structured CME Programme at Queen Elizabeth Hospital Year 07/08 (VII) - Neurosurgery and Pathology * HKMA Tennis Tournament	* A Woman with a Groin Mass	* HKMA Newsletter Editorial Meeting	* H o n g K o n g Neurosurgical Society Monthly Academic Meeting - Pain Management in Neurosurgery: Electrical Stimulation	* HKMA Structured CME Programme with Hong Kong Sanatorium & Hospital Year 2007 (X) * 脊柱創傷護理 (Code No. SCNSG-07-04)		* Refresher Course for Health Care Providers 2007/2008 (II) - Red Eyes in Primary Care
7	8	9	10	11	12	13
* Joint Professional Tenpin Bowling Tournament * HKMA Tennis Tournament			* FMSHK Executive Committee Meeting		* 16th Asian Congress of Surgery & 3rd Chinese Surgical Week	* The Federation's Annual Scientific Meeting 2007 - Targeted Therapy in Cancer * 16th Asian Congress of Surgery & 3rd Chinese Surgical Week
14	15	16	17	18	19	20
* HKMA Swimming Gala * HKMA Tennis Tournament * 16th Asian Congress of Surgery & 3rd Chinese Surgical Week	* 16th Asian Congress of Surgery & 3rd Chinese Surgical Week					
21	22	23	24	25	26	27
* 2nd Joint Scientific Meeting of The Royal College of Radiologists & Hong Kong College of Radiologists and 15th Annual Scientific Meeting of Hong Kong College of Radiologists * HKMA Structured CME Programme / Kwong Wah Hospital - Cardiothoracic Surgery * HKMA Tennis Tournament						* 2nd Joint Scientific Meeting of The Royal College of Radiologists & Hong Kong College of Radiologists and 15th Annual Scientific Meeting of Hong Kong College of Radiologists
28	29	30	31			



Date / Time	Function	Enquiry / Remarks
2 8:00 pm - 10:00pm TUE	FMSHK Officers' Meeting Organised by: The Federation of Medical Societies of Hong Kong # Gallop, 2/F., Hong Kong Jockey Club Club House, Shan Kwong Road, Happy Valley, Hong Kong	Secretariat Tel: 2527 8898 Fax: 2865 0345
4 8:00 pm THU	HKMA Council Meeting Organised by: The Hong Kong Medical Association Chairman: Dr. K CHOI # HKMA Head Office, 5/F., Duke of Windsor Social Service Building, 15 Hennessy Road, Wanchai	Ms. Christine WONG Tel: 2527 8285
7 2:00 pm SUN	HKMA Structured CME Programme at Queen Elizabeth Hospital Year 07/08 (VII) - Neurosurgery and Pathology Organised by: The Hong Kong Medical Association & Queen Elizabeth Hospital Speaker: Dr. C.L. LEUNG, Dr. T.S. TSE, Dr. Y.N. WONG # Lecture Theatre, G/F., Block M, Queen Elizabeth Hospital, Kowloon	Miss Viviane LAM Tel: 2527 8452 (Registration fee is required) 3 CME Points
7:30 pm	HKMA Tennis Tournament Organised by: The Hong Kong Medical Association Chairman: Dr. C.W. CHIN # Kowloon Tong Club	Ms. Dora HO Tel: 2527 8285
8 7:30 pm - 8:30 pm MON	A Woman with a Groin Mass Organised by: Hong Kong Urological Association Chairman: Dr. FUNG Tat Chow Berry Speaker: Dr. TAI Chi Kin Dominic # Seminar Room, G/F, Block A, Queen Elizabeth Hospital, Kowloon	Dr. CHAN Kwok Keung Sammy / Ms. Siddy MA Tel: 2958 6006 Fax: 2958 6076 1 CME Point
9 8:00 pm TUE	HKMA Newsletter Editorial Meeting Organised by: The Hong Kong Medical Association Chairman: Dr. H.H. TSE # HKMA Head Office, 5/F., Duke of Windsor Social Service Building, 15 Hennessy Road, Wanchai	Ms. Tammy TAM Tel: 2527 8941
10 7:30 am WED	Hong Kong Neurosurgical Society Monthly Academic Meeting - Pain Management in Neurosurgery: Electrical Stimulation Organised by: Hong Kong Neurosurgical Society Chairman: Dr. HUNG Kwan Ngai Speaker: Dr. MAK Wai Kit # Seminar Room, G/F, Block A, Queen Elizabeth Hospital, Kowloon	Dr. Y.C. PO Tel: 2990 3788 Fax: 2990 3789 2 CME Points
11 2:00 pm THU	HKMA Structured CME Programme with Hong Kong Sanatorium & Hospital Year 2007 (X) Organised by: The Hong Kong Medical Association & Hong Kong Sanatorium & Hospital Speaker: Dr. P.M. YUEN # HKMA Dr. Li Shu Pui Professional Education Centre, 2/F., Chinese Club Building, 21-22 Connaught Road Central, Hong Kong	Miss Viviane LAM Tel: 2527 8452 (Registration Fee is required) 1 CME Point
6:30pm - 8:30 pm	脊柱創傷護理 (Code No. SCNSG-07-04) Organised by: College of Nursing, Hong Kong	Secretariat Tel: 2572 9255 Fax: 2838 6280 2 CNE Points
13 2:30 pm SAT	Refresher Course for Health Care Providers 2007/2008 (II) - Red Eyes in Primary Care Organised by: The Hong Kong Medical Association & Our Lady of Maryknoll Hospital Speaker: Dr. K.K. HO # Training Room II, 1/F., OPD Block, Our Lady of Maryknoll Hospital, 118 Shatin Pass Road, Wong Tai Sin, Kowloon	Ms. Clara TSANG Tel: 2354 2440 2 CME Points
14 2:00 pm SUN	Joint Professional Tenpin Bowling Tournament Organised by: The Hong Kong Medical Association Chairman: Dr. A HO # Olympian City Super Fun Bowl	Ms. Dora HO Tel: 2527 8285
7:30 pm	HKMA Tennis Tournament Organised by: The Hong Kong Medical Association Chairman: Dr. C.W. CHIN # Kowloon Tong Club	Ms. Dora HO Tel: 2527 8285
17 8:00 pm - 10:00pm WED	FMSHK Executive Committee Meeting Organised by: The Federation of Medical Societies of Hong Kong # Council Chambers, 4/F., Duke of Windsor Social Service Building, 15 Hennessy Road, Wanchai, Hong Kong	Secretariat Tel: 2527 8898 Fax: 2865 0345
19 (20, 21, 22) FRI	16th Asian Congress of Surgery & 3rd Chinese Surgical Week Organised by: Asian Surgical Association & The Chinese Surgical Society of the Chinese Medical Association # Grand Epoch City, Beijing, China	Enquiry: ASA Congress Secretariat Tel: 2855 4235 / 2855 4993 Fax: 2818 1186 Email: info@AsianSurgAssoc.org Website: www.AsianSurgAssoc.org
20 1:00 pm - 5:30 pm SAT	The Federation's Annual Scientific Meeting 2007 - Targeted Therapy in Cancer Organised by: The Federation of Medical Societies of Hong Kong Chairman: Dr. HUNG Kwan Ngai & Dr. CHIM Chor Sang James Speaker: Various # M/F, Lecture Theatre, Hospital Authority Building, Kowloon	Ms. Karen CHU Tel: 2821 3515 Fax: 2865 0345 Website: www.fmshk.org
21 1:30 pm SUN	HKMA Swimming Gala Organised by: The Hong Kong Medical Association Chairman: Dr. M.H. IP # Hong Kong Polytechnic University, Hung Hom	Ms. Dora HO Tel: 2527 8285
7:30 pm	HKMA Tennis Tournament Organised by: The Hong Kong Medical Association Chairman: Dr. C.W. CHIN # Kowloon Tong Club	Ms. Dora HO Tel: 2527 8285
27 (28) SAT	2nd Joint Scientific Meeting of The Royal College of Radiologists & Hong Kong College of Radiologists and 15th Annual Scientific Meeting of Hong Kong College of Radiologists Organised by: The Royal College of Radiologists & Hong Kong College of Radiologists Speaker: Various # Hong Kong Academy of Medicine, Jockey Club Building, 99 Wong Chuk Hang Road, Aberdeen, Hong Kong	Secretariat Tel: 2871 8788 Fax: 2554 0739 Email: enquiries@hkcr.org Website: http://www.hkcr.org
28 2:00 pm SUN	HKMA Structured CME Programme at Kwong Wah Hospital Year 07/08 (VII) - Cardio-thoracic Surgery Organised by: The Hong Kong Medical Association & Kwong Wah Hospital Speaker: Dr. T.Y. CHAN, Dr. S.L. SZETO # Lecture Theatre, 10/F., Yu Chun Keung Memorial Medical Centre, Kwong Wah Hospital, Kowloon	Miss Viviane LAM Tel: 2527 8452 (Registration Fee is required) 3 CME Points
7:30 pm	HKMA Tennis Tournament Organised by: The Hong Kong Medical Association Chairman: Dr. C.W. CHIN # Kowloon Tong Club	Ms. Dora HO Tel: 2527 8285



Meetings

17-18/11/2007	Annual Scientific Meeting in Anaesthesiology 2007 - Expanding the Boundaries Organised by: The Hong Kong College of Anaesthesiology & The Society of Anaesthetists of Hong Kong # Hong Kong Convention and Exhibition Centre Enquiry: CMPMedica Pacific Limited Tel: 2559 5888 Fax: 2559 6910 Email: meeting.hk@asia.cmpmedica.com Website: www.hkca.edu.hk/asm2007.htm
24-25/11/2007	4th Asian Pacific Diabetic Limb Problems Organised by: Various # William MW Mong Block, Li Ka Shing Faculty of Medicine, The University of Hong Kong, 21 Sassoon Road, Hong Kong Website: http://www.diabeticlimb.hk/
11-12/1/2008	Hong Kong Surgical Forum, Winter 2008 Organised by: Department of Surgery, Li Ka Shing Faculty of Medicine, University of Hong Kong Medical Centre; Queen Mary Hospital & Hong Kong Chapter of the American College of Surgeons # Underground Lecture Theatre, New Clinical Building, Queen Mary Hospital, Pokfulam, Hong Kong Enquiry: Forum Secretary Tel: 2855 4885 Fax: 2819 3416 Email: hksf@hkucc.hku.hk Website: http://www.hku.hk/surgery
11-12/7/2008	Hong Kong Surgical Forum, Summer 2008 Organised by: Department of Surgery, Li Ka Shing Faculty of Medicine, University of Hong Kong Medical Centre; Queen Mary Hospital & Hong Kong Chapter of the American College of Surgeons # Underground Lecture Theatre, New Clinical Building, Queen Mary Hospital, Pokfulam, Hong Kong Enquiry: Forum Secretary Tel: 2855 4885 Fax: 2819 3416 Email: hksf@hkucc.hku.hk Website: http://www.hku.hk/surgery

Courses

13/11/2007, 16/11/2007, 20/11/2007, 23/11/2007, 27/11/2007, 30/11/2007, 4/12/2007, 7/12/2007, 18/12/2007	Managing people in health service (Code No. TC-WM-0107) Organised by: College of Nursing, Hong Kong Enquiry: Secretariat Tel: 2572 9255 Fax: 2838 6280
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Upcoming Certificate Courses of the Federation of Medical Societies of Hong Kong

Date	Course No	Course Name	Co-organiser	Target Participants
3 Oct 2007 - 7 Nov 2007	C124	Certificate Course on Infectious Disease	The Hong Kong Society for Infectious Diseases	General Practitioners & Paramedic
8 Oct 2007 - 19 Nov 2007	C122	Enhancing Medical Practice: The Role of Psychotherapy in Promoting Physical and Mental Health	Psychotherapy Society of Hong Kong	Medical & Health Professionals & Practitioner
20 Oct 2007 - 20 Nov 2007	C118	Certificate Course on Ophthalmology	The Hong Kong Ophthalmological Society	General Practitioners & Paramedic

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CERTIFICATE COURSE FOR GENERAL PRACTITIONERS & PARAMEDIC

Certificate Course on General Ophthalmology

眼科證書課程

Course No. C118

Jointly organized by:



The Federation of Medical Societies of Hong Kong
香港醫學組織聯會



Hong Kong Ophthalmological Society
香港眼科學會

Date & Time	Topic	Speaker
16 Oct 2007	Red Eyes 紅眼症 Ocular Trauma and Emergencies 眼部創傷及急症	Dr Alvin L YOUNG 楊樂旻醫生 Dr Fai-to LAI 黎輝濤醫生
23 Oct 2007	Retinal Detachment 視網膜脫落 Cataract 白內障	Dr Donald CF WOO 賀澤烽醫生 Dr Chi-keung JON 莊志強醫生
30 Oct 2007	Paediatric Ophthalmology 兒童眼疾 Squint 斜視眼	Dr Chun-yu WONG 王震宇醫生 Dr Christopher BO YU 于秉安醫生
6 Nov 2007	Glaucoma 青光眼 Refractive Errors 屈光不正	Dr Kenneth YW KWAN 關焯榮醫生 Prof Ernst GOLDSCHMIDT
13 Nov 2007	Common Macular Diseases 常見的黃斑點疾病 Diabetic Retinopathy 糖尿病	Dr Chi-ming FAN 樊志明醫生 Dr Wai-Man CHAN 陳偉民醫生
20 Nov 2007	Oculoplastic Surgeries 眼部整形手術 Laser Treatment of Eye Diseases 激光在眼科疾病中之應用	Dr Pak-Man CHENG 鄭柏文醫生 Dr David HY CHAN 陳浩然醫生

Date : 16 October 2007 - 20 November 2007

Time : 7:00 p.m. - 8:30 p.m.

Venue : Lecture Hall, 4/F, Duke of Windsor Social Service Building,
15 Hennessy Road, Wanchai, Hong Kong

Course Fee : HK\$750 (6 Sessions)

Language : English

Certificate : Awarded to participants with a minimum attendance of 70%

Enquiry : The Secretariat of the Federation of Medical Societies of Hong Kong

Tel. : 2527 8898 Fax : 2865 0345 Email : info@fmshk.org

CME/CPD Accreditation applied for

To download the application form,

please visit our website: <http://www.fmshk.org>

催眠治療臨床應用課程

合辦機構：



The Federation of Medical Societies
of Hong Kong



香港復康會適健中心

課程目標：催眠治療是一種心理治療方法，對於處理情緒壓力、失眠、焦慮、恐懼和抑鬱等問題甚為有效。此外，催眠在提升個人自信心、動力、與及改善人際社交關係也有顯著的效果。因此，對於從事醫療及護理工作的專業人士，催眠治療可以成為一種有效的方法，協助你處理病人不同的問題。本課程的目標是令參加者掌握簡單催眠治療的技巧，並應用於其日常臨床工作上。

目的：

1. 掌握正確催眠治療知識及技巧
2. 學習運用自我催眠技巧於不同病人的臨床工作
 - 舒緩痛楚
 - 情緒舒導
 - 改善睡眠質素
 - 處理壓力及焦慮
3. 提昇參加者處理工作壓力時的能力及信心

導師：

尹婉萍小姐

註冊臨床催眠治療師、認可催眠治療培訓導師、註冊社工

尹小姐擁有香港中文大學社會工作學士學位，香港大學社會科學碩士學位〈家庭輔導〉。她從事個案輔導及小組治療服務十多年，尤精於應用催眠治療及輔導於改善失眠、情緒舒導、壓力處理、家庭關係、親子溝通及管教等。尹小姐亦為香港大學行為健康教研中心臨床實習導師，於「催眠治療」學科督導碩士課程的學生。

內容：

- 一般人對催眠的誤解
- 催眠的定義、歷史及用途
- 催眠對改善身心的效用
- 催眠與潛意識的關係
- 認識潛意識的力量
- 催眠能力的測試
- 導入催眠意境的基本技巧
- 自我催眠的基本步驟及技巧
- 如何運用催眠技巧於
 - 舒導情緒
 - 治療失眠
 - 舒緩痛楚
 - 減壓
 - 改善身心健康

對象：

從事醫療及護理工作的專業人士

日期及時間：2008年1月3日 至2008年1月31日
(整個課程共 5 節，逢星期四，每星期1節，每節2小時)

地點：香港醫學組織聯會課室

教授語言：廣東話

名額：50人

收費：\$950





The Hong Kong Medical Diary

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THE FEDERATION OF MEDICAL SOCIETIES OF HONG KONG
香港醫學組織聯會

The Federation's Annual Scientific Meeting 2007 Targeted Therapy in Cancer

20 October, 2007 (SAT) 1:00 p.m. - 5:30 p.m.

Lecture Theatre, M/F, Hospital Authority Building, 147B Argyle Street, Kowloon

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THE FEDERATION OF MEDICAL SOCIETIES
OF HONG KONG

The Federation's Annual Scientific Meeting

2007

Targeted Therapy in Cancer

20 October, 2007 (SAT)
1:00 p.m. - 5:30 p.m.
Lecture Theatre, M/F,
Hospital Authority Building,
147B Argyle Street, Kowloon



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Department of Medicine, Queen Mary Hospital, The University of Hong Kong
- **Head and Neck Cancer**
Dr. Daniel TT Chua
Department of Clinical Oncology, Queen Mary Hospital, The University of Hong Kong
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