PERIO COURSES NEWS

JUNE 2013

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Welcome to the latest copy of PerioCourses News. Lots of interesting stuff from Phil, Sarovi and Ian - enjoy!

Sarovi's Volunteer Work at the DVI Clinic, Israel

In June this year, I volunteered at the Dental Volunteers for Israel (DVI) clinic in Jerusalem. It is the largest free dental clinic in Israel, offering state-of-the-art treatment, thanks to volunteer dentists from all corners of the world. DVI offers free dental care to Jerusalem's at-risk children and youth, regardless of race or religion – and has done so since 1980. It is the only clinic providing totally free oral health care and education, from age 5 to 18 – and treated 3,041 kids in 2012 alone!

I arrived on Saturday 1st June to start my first day at 8am on Sunday. I was pleasantly surprised to find the clinic was well stocked (Henry Schein's annual large donation of material and equipment had just arrived - rationing throughout the year was about to begin!), the nurses were well trained, knowledgeable and helpful and the patients were exceedingly co-operative and grateful to be operated on. The half day of work ended at 1.30pm, which left me the afternoon to enjoy the beautiful old city of Jerusalem, amble through the incredible food market and visit Yad Vashem Museum.

I also took great pleasure in enjoying the culinary excellence and beautiful weather. It was, over all, a wonderful and rewarding week that I would recommend to anyone (all general dentists & specialists alike). I was recommended by Philip Greene (President of the British Society of Periodontology), who regularly volunteers there and, during my stay, was taken under the wing of Robbie Wolfson (the UK representative) and his wife, Lynne. Thank you Phil - it exceeded my expectations and opened my eyes. A big thank you also, to Robbie and Lin and all the DVI staff who were so welcoming and made it such a fantastic trip. One word to summarise.... Yoffi! :)

If you would be interested in volunteering or donating/raising money for the clinic, visit their website at: http://dental-dvi.org.il/

PLEASE READ THIS!!

We cannot recommend this paper from the April 2013 Dental Update too highly. Please try and read it if you can and you'll see how others are now teaching the principles that we have been advocating on PerioCourses for the last 15 years. While you're at it try and read the paper from May 2013 Update by someone called Ower!

Duaa Turani
Susan M Bissett and Philip M Preshaw

Techniques for Effective Management of Periodontitis

Abstract: The treatment of periodontitis is a complex process that can last for many years. Successful management of this common inflammatory condition necessitates team work by the patient, dental hygienist and dentist. A variety of complex skills are required including, not only the necessary clinical skills, but also excellent communication, education and motivation of patients. Above all, time is required to treat the condition properly, and successful outcomes depend heavily on engaging with and empowering the patient to manage his/her condition. Patients need to be active partners in the management of their periodontitis (supported by the dental team), and this will only happen if the time is spent to educate them on their role. Communication is essential for successful management, and behaviour change is always required of patients. Strategies for working effectively with a dental hygienist, and a suggested treatment protocol are presented to help dentists develop more effective methods of treating periodontitis.

Clinical Relevance: This article gives practical guidance on how to manage patients with periodontitis as well as working within the dental team to achieve the best clinical outcomes.

Dent Update 2013; 40: 181–193

The aim of this paper is to give practical guidance for busy general dental practitioners, dental hygienists and dental therapists to help them manage periodontitis more effectively. The successful management of periodontitis requires significant amounts of time to be spent with patients, and also depends heavily on the patients' involvement in managing their condition. Patients need to be active partners in the process, working together with the dental clinician, and this mandates the clinician to spend time with patients, to educate them on their role.

Duaa Turani, BDS, MFD RCSI, Specialty Dentist in Restorative Dentistry, Glasgow Dental School, Glasgow, **Susan M Bissett**, EDH, ClinRes, Research Dental Hygienist and **Philip M Preshaw**, BDS, FDS RCS(Ed), FDS(RestDent) RCS(Ed), PhD, Professor of Periodontology, School of Dental Sciences and Institute of Cellular Medicine, Newcastle University, Newcastle upon Tyne, UK.

What is periodontitis?

This may seem a surprising question – we can all recognize periodontitis when we see it in our patients, but it is useful to consider briefly current concepts of disease. We all know that periodontitis is initiated by the bacterial biofilm (ie subgingival plaque), but that is far from being the full story. Current thinking about the nature of periodontitis is captured in these statements taken from recent publications in the periodontal literature:

'Periodontitis is more accurately characterised as a non-resolving inflammation that is ineffective in eliminating the initiating pathogens'.[1]

'Periodontitis is an inflammatory disease initiated by oral microbial biofilm … it is the host response to the biofilm that destroys the periodontium'.[2]

The recognition that the inflammatory response is responsible for the majority of the tissue breakdown helps to explain why some people are more susceptible to periodontitis (even if they have good oral hygiene), why periodontitis can seem to run in families (because aspects of immune and inflammatory responses can be genetically determined), and why some people appear to be relatively resistant to developing periodontitis, despite the fact that they might have very poor plaque control.

Taking the history

Start with the *presenting complaint* – what are the patient's concerns? Unfortunately, the signs and symptoms of advanced periodontitis present late in the disease process, by which time there may already be extensive attachment loss. Patients will often mention bleeding gums (their gums may have bled for so long that they think it is almost normal), but this does not discriminate between gingivitis and periodontitis. Sometimes, patients will mention gaps appearing between teeth, or mobile teeth – both of these can be indicative of advanced disease.

How do you treat peri-implantitis?

In a recent Evidence Based Dentistry (EBD), which on module 4 we recommend everyone to read and file away, the Cochrane sytematic review on 'Interventions for replacing missing teeth: treatment of peri-implantitis' was critically evaluated. This was an extensive review which included 9 RCTs which met the inclusion criteria. 5 trials compared non-surgical interventions, 2 compared different surgical interventions and one each compared adjunctive treatments to both surgical and non surgical interventions. Bias was found to be high and the trials did not distinguish between partially edentulous and edentulous patients, nor between those patients with and without a past history of periodontitis. So again the data on how implants behave in perio-susceptible patients is woefully lacking. Nevertheless the following guidance was suggested:

1. Interventions can range from simple non-surgical management to resective surgery.
2. There is little evidence to determine which is the best treatment for peri-implantitis.
3. As peri-implantitis can recur, and due to the lack of evidence for the effectiveness of complex treatment, 'simpler approaches may be preferable'.

Hello, where have we heard that before?!!

Interventions for replacing missing teeth: treatment of peri-implantitis. *Esposito et al, Cochrane Database of Syst Rev. 2012; Issue 1. Art. No.: CD004970*

Individualized OHI works best!

One of the fundamentals that we teach (module 2) is the importance of patients trying to achieve optimal plaque control before any active treatment is started. To do this we have to try and motivate patients to spend much longer on their plaque control and we've always said that this is one of the most difficult things to do in dentistry. We give some tips on this, one of which is to make an individualized oral hygiene instruction sheet, using photos of the patient, an example of which can be found on the Downloads section of the website. Incidentally this same technique has been recommended in an excellent Dental Update article by Turani et al in the April 2013 Update, which everyone should read and digest! This paper justifies this approach - 83 students were randomly assigned to either a control group (no OHI), a written instruction group (generic OHI handout with no verbal instruction), a standardized oral instruction group (had the handout read to them) or and individualized oral instruction group (what we teach). Participants who received the individualized oral instruction got the best results. Surprise, surprise but it's great to know that what you're doing is evidence-based!

Oral and written instruction of oral hygiene: a randomized trial. *Harnacke et al, J Periodontol 2012; 83: 1206-1212*

Phil Ower

CPD for the PerioCourses Team

Have you ever wondered who teaches the teachers? Well, apart from trawling through all of the journals, we all regularly attend conferences and workshops with world leaders in their field to keep us up to date with the latest information. Last year we told you about our trip to EuroPerio in Vienna and our latest "team" day out was to the equally refined.....Manchester!!! The BSP Spring Scientific Meeting was held in Manchester on April 11th and 12th and Phil, Ghilaine, Ian and Sarovi all made the journey to Manchester to hear from the great and the good.

The first day had a strong non-surgical focus, as should all periodontal therapy, with Marc Quirynen opening the meeting talking about "non-surgical therapy, where are we now". This was a captivating "performance" delivered with humor, a focus on the evidence, funny videos and much more (sound familiar?). He spent a lot of time talking about full mouth treatments and rationale/science behind them. Sadly, for me, there was still his strong focus on chemical plaque control and the use of chlorhexidine in various forms, something that was challenged quite strongly in the question time by a number of UK academics. Up until he started taking about chlorhexidine, I thought Phil was going to offer him a job with the PerioCourses team!

Then followed a "parallel session" where Francis Hughes talked about risk factors (**Module 1**) while Ian Peace talked about delivering perio in practice with a focus on perception, price and promises to the patients. Both were well attended and I enjoyed listening to Francis Hughes's review of the literature, discussing current thinking and his views on risk assessment tools.

Prof Robinson (Sheffield) then talked about some qualitative research and about how patients feel about periodontal treatments. We are seeing an increase in the periodontal literature in reporting patient-centered outcomes as well as the usual PPD, CAL, BOP etc. We all agree that this is a positive thing as the later measures are things that we dentists get excited about whilst the patient usually cares about other things like pain, mobility, appearance, bleeding on brushing.

After lunch it was time for our second helping of Prof Quirynen. This time he changed his focus to oral malodour. He presented lots of information relating to the aeitiology, microbiology and anatomy of oral malodour and the main focus of his advice was that patients need to use a tongue scraper to clean the surface of their tongues as this accounted for the majority of the bad breath in the studies he showed.

The day closed with Prof Mombelli and his presentation on antimicrobials. They really did save the best until last! Prof Mombelli quite quickly rubbished the use of local delivery systems and moved his presentation on to the use of systemic antibiotics. He made a fantastic case for the selective use of systemic antibiotics (**Module 3**) in the treatment of aggressive periodontitis and progressive, severe forms of periodontitis, before going to surgery. In chronic perio, it was always a 2nd or 3rd line treatment and only when conventional non-surgical treatment had been exhausted. This proved the most contentious talk of the day in the Q&A afterwards with the meeting over running and having to be stopped otherwise we would have missed the evening party. Personally, as the party was at Old Trafford, I would have preferred to listen to the academic debate!

The second day had a surgical focus (if only we had thought of doing non-surgical first followed by surgical!) and we had the pleasure of listening to Dr Pat Allen from Dallas, Texas talk about mucogingival defects and their treatment, using an allograft material. His presentation was excellent and included great before and after photos, surgical videos and reference to the evidence but we had to question some of the defects that he was treating. Apparently, 3mm of recession affecting lower premolars and molars is severe, and he showed many treated cases with this level of recession. Differences aside, there is no doubt that he is getting great results with this connective tissue substitute and saving many patients that second surgical site. He preached a relatively simple technique, similar to the pouch technique that we teach on **Module 6**, and we shared many of the same surgical philosophies i.e. no vertical relieving incisions, wound stability and continuous sutures, which was great to see.

Finally we heard about the state of play in periodontal regeneration. Obviously this topic was delivered by an Italian, and Francisco Cairo did not disappoint. He showed cases and studies using fillers and membranes, Emdogain and cases were the surgical technique was so precise and wound stability was so good, that bone fill could be seen radiographically without the use of bio-materials. We look forward to passing this information onto you on **Module 5**, Surgery for the Diseased Patient.

It was good to see a number of our previous course delegates at the meeting, it is always good to catch up and say hello. I would encourage you all to keep an eye on the BSP website for future Spring meetings as they are world class and very reasonably priced.

Ian Dunn

Orthodontics as a risk factor for recession?

Background
A retrospective study looking at the models of 100 orthodontically treated patients at age 12,15, 18 and 21 and 120 controls at the same ages. Presence of recession was scored on a “Yes/No” basis.

Findings
There were significantly higher numbers of individuals with at least one recession in the treated groups. At the age of 18, 15% of the treated group had recessions compared with only 5% in the untreated group. At age 21, these figures were 35% and 16.7% respectively. They also analysed the data for multiple recessions and it is not surprising that the treated group had significantly higher numbers of patients with multiple recessions. The authors found that the overall odds ratio **(Module 4)** for recession in orthodontic patients compared to untreated controls was a whopping 4.48!

Discussion
There are many limitations with this type of study design and there is a limited amount of information about the type of orthodontic treatment i.e. extraction vs expansion, although we know they were all fixed cases with bonded lingual retainers. That said, we have been discussing this for some time now on our courses and we are seeing more and more cases being referred to us in practice to treat recession that has occurred during or shortly after orthodontic treatment. Although we know that these defects don’t need to be treated to maintain gingival health, patients undergoing orthodontic treatment have high aesthetic demands and as such don’t like the appearance of these recessions.

Two points to take from this:
If you are doing ortho in practice, think about the tooth movements that you are making and assess the patient’s gingival biotype. Excessive labial movements in thinner biotypes may lead to gingival recessions Get yourself on Module 6 to learn how to correct these defects.

Gingival labial recessions in orthodontically treated and untreated individuals: a case-control study. Renkema AM, Fudalej PS, Renkema AAP, Abbas F, Bronkhorst E and Katsaros. J Clin Perio 2013 ; 40:631-637

Ian Dunn

No Gingival Health Benefits are Gained Following a Single-Visit Scale and Polish

Background
A two year long, randomised controlled trial was conducted in general practice to the investigate the effect of a routine scale and polish on gingival health.
Outcome
The outcomes measured were presence of gingival bleeding, plaque and presence and amount of calculus.
Intervention
Three hundred and sixty-nine patients from the age of 18-60 who displayed gingivitis (BPE codes <3) were randomly allocated to have a single-visit scale and polish at either 3 monthly, 6 monthly or 12 monthly intervals. The examiners who assessed them at the end of the two years were blinded with regards to the participant group allocation.
Findings
There were no differences between groups at follow-up for prevalence of gingival bleeding, plaque and calculus.
Comment
The scale and polish is one of the most commonly provided services in dentistry. It has been carried out for years without the support of a strong evidence base. It is imperative that, as a profession, we seek to provide this evidence base for a number of reasons. Firstly, it allows appropriate allocation of resources, both financial and time, towards achieving real health benefits. Secondly, it provides us with the knowledge to appropriately inform patients. Patients have now become used to receiving a 'scale and polish', hence the commonly used prefix 'routine', with the false expectation that it will improve their oral health. This belief distracts the patient from taking responsibility for their own oral health.
Further Research
Further RCT's are required to investigate this topic, with combination into meta-analyses for policy makers to instigate changes in guidelines. This particular study can only be applied to patients with gingivitis, but research is already being directed towards comparing oral hygiene advice versus non surgical periodontal therapy for the prevention and management of periodontitis... So watch this space!

Clinical outcomes of single-visit oral prophylaxis: a practice-based randomised controlled trial. Jones CL, Milsom KM, Ratcliff P, Wyllie A, Macfarlane TV, Tickle M. BMC Oral Health 2011; 11: 35.

Sarovi Drone

Effects of smoking cessation on the outcomes of non-surgical periodontal therapy

Background - Smokers are two to eight times more susceptible to periodontal disease than are non-smokers (Palmer et al. 2005, Johnson & Guthmiller 2007), almost five times more susceptible to tooth loss due to periodontitis and respond less positively to periodontal management (Papantonopoulos 2004, Johnson & Guthmiller 2007 Chambrone et al. 2009, Wan et al. 2009, Rosa et al. 2011).
Results - 2455 articles were searched on 3 data bases, but only 2 were actually used in the SR and IMA, severely limiting the results. Unfortunately, this is typical of SR's and reflects the sub optimal quality of the existing evidence base. The small yield of papers was also due to particular exclusion criteria utilised (smokers who expressed a wish to stop, a trial of ≥ 6 month duration & a diagnosis of periodontitis.)
Outcome - A combination of surrogate and true outcomes were measured (if you are unsure of the difference, then come to module 4!). The primary outcomes measured were clinical attachment level and probing depth. Secondary outcomes measured were plaque score, bleeding on probing, radiographic changes on the alveolar bone level and number of of teeth lost during the study period.
Findings - The individual outcomes from these two studies showed that quitting smoking led to an additional PD reduction (Preshaw et al. 2005) and CAL gain (Rosa et al. 2011) after non-surgical periodontal therapy over a 12-month period.
Comment - Only limited information on the effects of smoking cessation on clinical outcomes following periodontal therapy is available in the current base of evidence and only two were identified by this systematic review.
Overall, it is reasonable to conclude that smoking cessation is an important component of periodontal management and smokers should be encouraged to quit.
Further Research
Both studies individually lacked power to clearly identify clinically significant benefits of smoking cessation across the spectrum of clinical parameters routinely used to assess response to treatment in clinical practice. Further controlled, prospective clinical trials are required to further investigate the impact of smoking cessation on clinical outcomes and potential prognostic factors. Such studies would ideally be of at least 12 months' duration.

Effects of smoking cessation on the outcomes of non-surgical periodontal therapy: a systematic review and individual patient data meta-analysis. Chambrone L, Preshaw PM, Rosa EF, Heasman PA, Romito GA, Pannuti CM, Tu Y-K. J Clin Periodontol 2013; 40: 607–615.

Sarovi Drone

Only modest and unstable benefits from adjunctive photodynamic therapy

Background
A number systematic reviews (SR) have recently been conducted to assess the clinical benefit of adjunctive photodynamic therapy (PDT) in the non surgical management of periodontitis (Atieh 2010, Azarpazhooh et al. 2010, Sgolastra et al. 2013). However, their inclusion of studies with low numbers, poor methodological quality or bias have placed limitations of their interpretation. This SR and meta- analysis included rigorous inclusion/ exclusion criteria, analysis of publication bias and used a wide search strategy with no language restrictions.

Outcomes
Primary outcomes measured were clinical attachment level and pocket depth reduction Secondary outcomes measured were changes in reduction of bleeding on probing and an increase of gingival recession.

Findings
Small additional benefits, in terms of pocket depth reduction and clinical attachment level gain, were gained with adjunctive photodynamic therapy, when compared with scaling and root planing alone. However, these statistical improvements appeared to be of little clinical relevance. Furthermore, they were observed only at the 3-month follow-up time-point whereas no significant differences were observed at 6 months. However, this finding could be related to the small number of included studies that reported a follow-up time of 6 months.

Comment
The use of adjunctive PDT to conventional non surgical therapy was found to provide modest short- term benefits. However, evidence to support its clinical medium/ long-term efficacy is insufficient.

Further Research
Further long term, high-quality RCTs are needed to investigate the influence of potential confounders on the efficacy of adjunctive PDT. Therefore, until the remaining issues are clarified, no clinical recommendation can be given.

Adjunctive photodynamic therapy to non-surgical treatment of chronic periodontitis: a systematic review and meta-analysis. Sgolastra F, Petrucci A, Severino M, Graziani F, Gatto R, Monaco A. J Clin Periodontol 2013; 40: 514–526.

Sarovi Drone

Conventional periodontal surgery reduces pocket depths and increases gingival recession.

Background
An intraosseous bony lesion caused by periodontal breakdown presents a barrier to plaque control. One method of management is via conservative or regenerative surgery. Although evidence has shown that regenerative procedures have superior clinical outcomes (Needleman et al. 2005), there are still significant benefits of treating intrabony defects using conventional conservative surgery, including a more favourable cost-benefit outcome.

This SR included randomised controlled trials involving periodontal management on intrabony/intraosseous defects, using various surgical flap designs for periodontal pocket surgery, including simplified, modified, access, Widman or papilla preservation flaps.

Results
A relatively high number of thirty-one studies were included for this systematic review. A year after conservative surgery, tooth survival was 98% and improved clinical parameters were reported (CAL gain, probing depth reduction and increased gingival recession). These results were also shown in studies with longer follow up times.

Conclusions
The treatment of intrabony defect with conservative surgery is associated with high tooth retention and improvement of periodontal clinical parameters. Clinical performance may vary according to the type of surgical flap used.

Clinical performance of access flap surgery in the treatment of the intrabony defect. A systematic review and meta-analysis of randomized clinical trials. Graziani F, Gennai S, Cei S et al. J Clin Periodontol 2012; 39: 145–156.

Sarovi Drone

PERIODONTAL MANAGEMENT IN GENERAL PRACTICE

for Dentists and Hygienists/Therapists

Dr Philip Ower MSc BDS MGDSRCS(Eng & Ed)

This intensive course will cover: Diagnosis, Risk assessment, Treatment planning, Treatment options, Non-surgical disease management

Aims:

•To understand the principal aetiological and risk factors involved in the development of periodontal diseases.
•To understand the importance of screening and assessment for periodontal disease in general dental practice.
•To appreciate the range of treatment options available for periodontal diseases.
•To understand the objectives of non-surgical therapy and how this relates to current practice.
•To understand the indications for, and limitations of, antimicrobial therapy.

Objectives:

The course should enable participants to:
•Diagnose periodontal diseases accurately and effectively.
•Use BPE as a fast and effective screening tool.
•Use periodontal probing more effectively.
•Assess patients' level of risk for periodontitis accurately.
•Deliver oral hygiene effectively.
•Treatment plan periodontal care logically.
•Choose an appropriate treatment approach for individual patients.
•Use antimicrobials in a rational and evidence-based way

Cost, including refreshments & lunch:
Dentist - £150 Hygienist/Therapist - £90
Bring your dentist/hygienist with you!

Please complete one booking form per applicant and return with payment to:
PerioCourses, Green Hayes, Malvern Road, Liss GU33 7PZ
Cheque payable to *PerioCourses Ltd*

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	Thursday 4 July 2013	The Manor House, Huxley Close, Godalming, Nr **Guildford** GU7 2AS
	Saturday 14 September 2013	Alexandra House, Whittingham Drive, Wroughton, Nr **Swindon** SN4 0QJ
	Thursday 19 September 2013	Holiday Inn , Reading-South, M4 Jct.11, Basingstoke Road 500, **Reading** RG2 0SL
	Saturday 5 October 2013	HIlton Southampton , Bracken Place, Chilworth, **Southampton** SO16 3NG

Name .....GDC No:.....

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