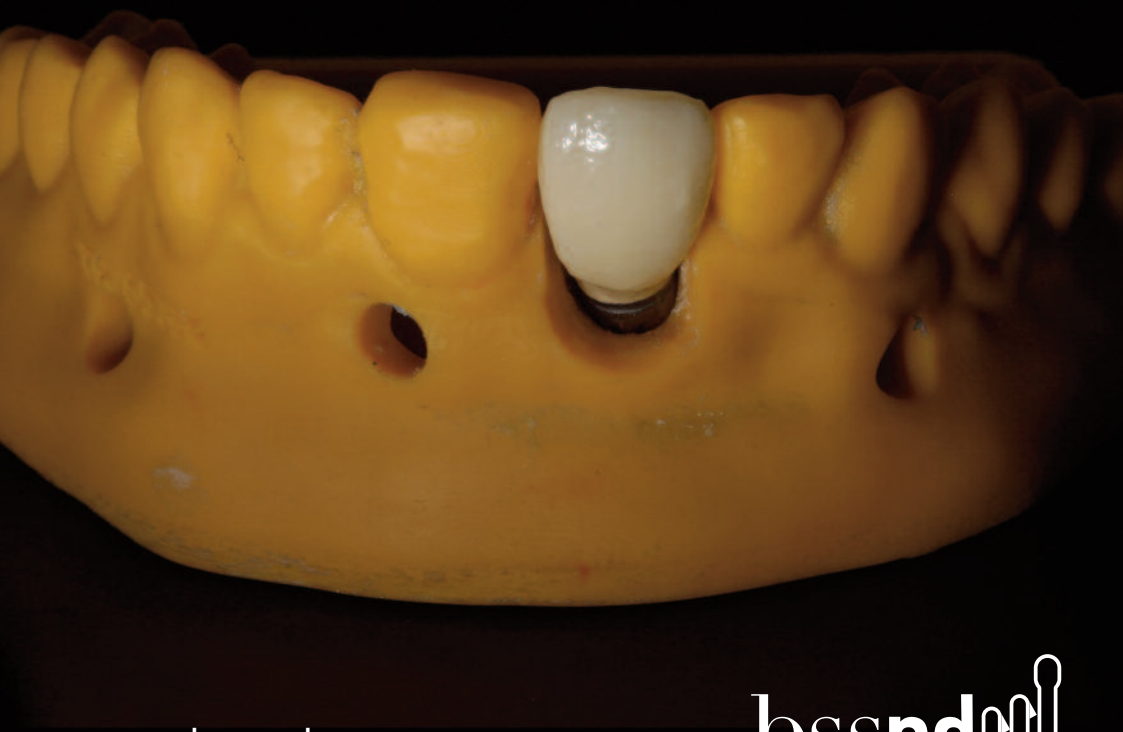
July 2018 - Volume 24

BSSPD
NEWSLETTER



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WELCOME

the president's editorial

Professor Phil Taylor

I am writing to you as the 65th President of our specialist Prosthodontic society. I am reflecting on this great honour you, as a membership, have bestowed on me as I prepare to travel as your representative to the 100th meeting of the American Academy of Prosthodontics, which is meeting in Chicago where it first originated in 1918. By coincidence their President is another Taylor but by no relation.

We have made great strides in recent years in maintaining the society as a vibrant and contemporaneous society whose membership ranges across all spectrums of clinical practice so we can improve the knowledge and skills of our membership. It is my role to build on the excellent recent conferences and it would be remiss of me to not thank our past President, Phil Smith, for a fantastic conference in Liverpool. With the challenge of keeping the Society as the leading voice for UK Prosthodontics in mind, I am discussing with the Faculty of General Dental Practitioners about organising a joint conference to hopefully expose their membership to the excellent facilities we can offer, to complement their work in raising standards in General Practice. We already have acknowledgement that the DCT's for London can come along on the Friday so this really is an opportunity to showcase the Society in all its aspects from education to friendly interaction.

The meeting in 2019 will be held at the Royal College of Physicians in Regents Park London. It is a great venue with lots of space to interact outside the official presentations with friends and the Trade.

Already I have secured Professor Terry Donovan as the keynote speaker with a host of well-known UK names to support him. The title is 'Managing the Heavily Restored Dentition – Profitability, Patient Expectations and Reality?' so is very much aligned to the practitioner working at the coal face in the challenging world of replacement dentistry. There are a good range of hotels in the vicinity with prices to suit everyone.

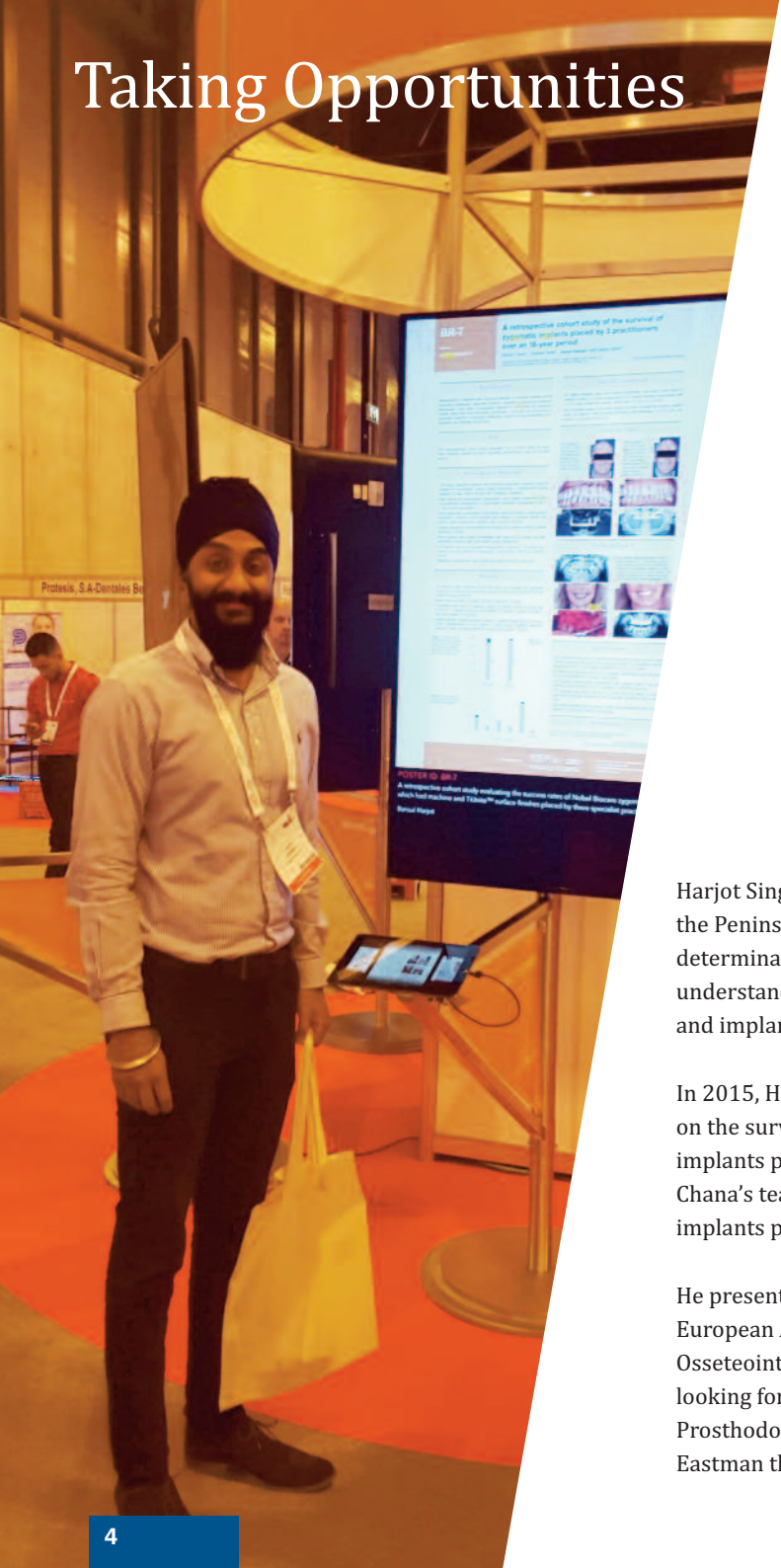
In 2018 we trialled not having a formal dinner and went for a mixer event. The College of Physicians can do something similar with a buffet in the library which I hope will attract many of the delegates to meet friends over good food in relaxed atmosphere.

The educational side of the Society is a major part of our existence and the Webinars are proving very successful to all members but particularly to the trainees who again have sold out our ISFE / MRD/ MPros examination practice session held at Barts and The London. Again we have to thank Kushal Ghadia who has this year relinquished the role of Early Practitioner lead to Michael Myint and Jonathan Dixon who I am confident will be great ambassadors for the Society.

To conclude I would like to thank the Council and you as members for your continued support.

Phil Taylor, President, British Society of Prosthodontics

Taking Opportunities



First steps into research

Harjot Singh qualified in 2014 from the Peninsula Dental School with a determination to get a better understanding of implant surgery and implant retained prosthesis.

In 2015, Harjot conducted an audit on the survival rates of zygomatic implants placed by Mr. Harpal Chana's team. The data had included implants placed as far back as 1997.

He presented the findings to the European Association of Osseteointegration in 2017. Harjot is looking forward to starting his Prosthodontics training at UCL Eastman this September.

BR-7

BASIC RESEARCH

A retrospective cohort study of the survival of zygomatic implants placed by 3 practitioners over an 18-year period

Harpal Chana[1*], Graham Smith[1*], **Harjot Bansal**[2] and Daniel Zahra[2]

[1]Department of Oral and Maxillofacial Surgery, Kingston Hospital, Kingston Upon Thames, UK.
[2]Peninsula Schools of Medicine and Dentistry, Plymouth University, Plymouth, UK.

*These authors contributed equally to this work.

Background

Management of patients with a severely atrophic or resected maxilla can be extremely challenging. Zygomatic implants, originally developed by Professor Brånemark, have been successfully utilised to rehabilitate the posterior maxilla using fixed and removable prostheses[1]. Although the placement of zygomatic implants is surgically challenging, significant post-operative complications are relatively uncommon.

Aim

This retrospective cohort study evaluated the success rates of zygomatic implants placed by three specialist practitioners over an 18-year period.

Methods and Materials

- This study evaluated patients who received zygomatic implants (Zygoma Implant RP (machined), custom-made (machined), or Brånemark System Zygoma TiUnite; Nobel Biocare AB, Göteborg, Sweden).
- After clinical and radiographic examination, each patient underwent either computerised tomography or cone-beam computer tomography (CBCT) to aid implant placement.
- Early cases were conducted in a secondary care environment under general anesthetic. However, most implants were placed in a primary dental care setting under intravenous sedation with a local anesthetic.
- Implant placement was classified according to the zygoma anatomy guided approach (ZAGA)[2].
- Most implants were loaded immediately with fixed acrylic bridges and later definitively restored with fixed metal-acrylic bridgework.
- All patients had post-operative radiographic evaluation, including panoramic and peri-radicular radiographs, and regular follow-up appointments.
- Statistical comparisons were performed using Fischer's exact test.

Results

- 43 patients, aged between 42 and 88 years old, received 88 zygomatic implants. 27 implants had machined surfaces and 61 had anodized (TiUnite, Nobel Biocare) surfaces.
- Mean follow-up was 7.5 years, and the maximum 18 years.
- 5 implants were lost in 4 patients, giving an overall implant survival rate of 94.32%. Failures occurred at 6 months, 18 months, 3 years and two in the same patient at 15 years.
- Patient gender, implant surface (Figure 1), implant length (20–52.5 mm), ZAGA classification[2] (0–4; Figure 2), and implant position (anterior, posterior) were not associated with failure (all p-values > 0.05).

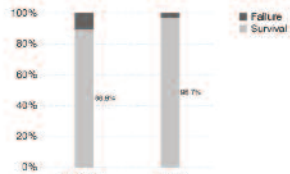


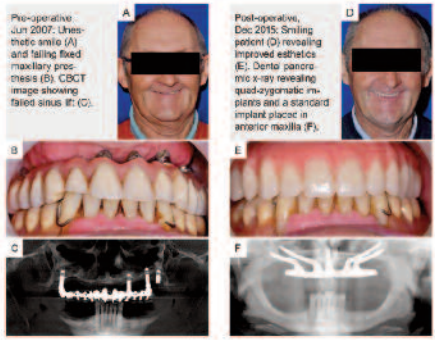
Figure 1 Implant survival and failure rates by implant surface. Mean and range of time between implant placement surgery and last follow-up is also shown.

Figure 2 Occurrences of implant survival and failure by ZAGA classification[2].

Results continued

- All failed implants were from fixed prostheses, and were more likely to exhibit a history of screw loosening (3 of 5 failed implants associated with 3 of 9 screw loosening events, odds ratio = 19.25, p = 0.003).
- No consistent reasons for failure were recorded, though the primary patient factor for failures was removal following chemotherapy (3 of 5), and not related to implant properties.

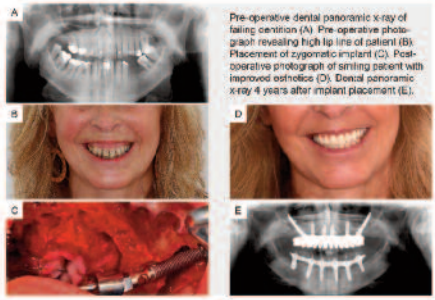
Clinical Case I



Pre-operative, Jun 2007: Unesthetic smile (A) and failing fixed maxillary prosthesis (B). CBCT image showing failed sinus lift (C).

Post-operative, Dec 2015: Smiling patient (D) revealing improved esthetics (E). Dental panoramic x-ray revealing quad-zygomatic implants and a standard implant placed in anterior maxilla (F).

Clinical Case II



Pre-operative dental panoramic x-ray of failing dentition (A). Pre-operative photograph revealing high lip line of patient (B). Placement of zygomatic implant (C). Post-operative photograph of smiling patient with improved esthetics (D). Dental panoramic x-ray 4 years after implant placement (E).

Conclusions

- This retrospective study on patients with severely atrophic and/or resected maxilla supports that zygomatic implants provide a predictable method for supporting fixed or removable prostheses for up to 18 years.
- An overall survival rate of 94.32% is notable, particularly given the diversity of clinical indications included in the study.
- The primary patient factor associated with implant failure was removal following chemotherapy, and not related to implant properties.
- The relatively low failure rate did not reveal any risk factors of statistical significance, though the authors acknowledge a potential lack of statistical power.
- Zygomatic implants can be placed under local anesthetic and intravenous sedation in a primary dental care setting.

References

1. Aparicio C et al. *Clin Implant Dent Relat Res* (2014) 16(3):447-59.
2. Aparicio C. *Eur J Oral Implantol* (2011) 4(3):263-275.

Kingston Hospital audit reference number 138i.
Poster preparation support was provided by Nobel Biocare (grant 2017-1621).

BSSPD

Conference 2018

LIVERPOOL

“this year was an eye-opener”

Dr. Phil Smith, the Immediate Past President of BSSPD, tells us all about how the annual BSSPD conference in Liverpool took shape this year.

The Society’s 2018 Conference was held in the magnificent setting of the Grade 1 listed St George’s Hall in Liverpool. The historic setting of the Concert Room was complimented by first rate audio-visual support and a series of presentations by experts in their field. The camaraderie, friendships made and renewed, provided the background for a truly memorable Conference.

The Conference was opened by Professor Sir Munir Pirmohamed Liverpool University, a world expert in Personalised Medicine. He set the scene with the context of Dentistry in Liverpool and contributions made to this field sustained over many years.

He went on to link personalised medicine with the Cleft Palate theme of the first day of the conference.

Professor Bill Shaw was able to give remarkable insights into the development of our current strategies and protocols in the management of Cleft Lip and Palate. These resulted from what appeared to be tremendous international collaborations involving multidisciplinary contributions. The research methodologies and support involved were testament to those striving for clinical excellence involving multidisciplinary teams and serve as a lesson to us all.

Mr Simon van Eeden then focused our attention on the surgical aspects of managing clefts.

He was again able to support the choice of surgical procedures and protocols based on a sound evidence base, illustrating our speaker's mastery of his chosen craft.

Dr Susana Dominguez-Gonzalez was next to update us on orthodontic procedures in cleft palate, bringing us all up to date on the protocols used to ensure that the dentition is developing and being aligned appropriately for any associated surgical procedures or subsequent prosthodontic rehabilitations

Over a lunch posters were on display and there was an opportunity to speak to the presenters and quiz them about the work they had chosen to display. There was a great diversity of posters that illustrated that our members continue to be active in all facets of the Specialty, namely research, clinical excellence and audit. Entries for the Schottlander Poster Prize competition were displayed together with non-entry posters the main hall of the venue. The scale of the surroundings lending itself to accommodating our colleagues form the 'Dental Trade', lunch and leaving sufficient circulation space around the posters! The poster boards remained throughout the two-day event.

After lunch, our attention was turned to the psychological aspects of managing patient's with cleft lip and palate, and we were treated to a most illuminating presentation by Dr Zoe Edwards who works in the multidisciplinary team managing our patients in the North West.

The remainder of the afternoon saw us taking inspiration from a formidable double act of Ginette Phippen and Sandip Popat. They carefully led us through the maze that is often associated with managing speech alongside prosthodontic rehabilitation. The explanations of speech sounds/phonetics is the clearest I have witnessed and the associated prosthodontics was impressive and of great interest to members too. Our first day concluded with a tour de force from Andrew Barber, his presentation on Prosthodontic rehabilitation was fabulously illustrated and demonstrated an amazing breadth of skills in planning, simplifying and executing complex rehabilitations in a diverse group of patients.

This session was immediately followed by the Annual General Meeting.

In a departure from our Conference tradition we aimed to modernise by substituting a social mixer in place of the more formal dinner. Whilst this was something of a tester for the future it seemed to work well and I think was more inclusive, attracting a wide range of attendees, perhaps more diverse than would chose a formal occasion. How this goes in future is of course down to future President's and there will no doubt be differing views but I hope that whatever direction this takes it will continue to be a friendly, inclusive and enjoyable event.

Friday's Conference sought to focus on updating members firstly on contemporary research in Prosthodontics, and this was followed by current approaches to clinical management in associated specialties. The session started with the research entries for the Schottlander Oral Prize. The standard was impressively high and all our speakers displayed an extraordinary depth of knowledge of their chosen topics. It certainly made for some difficulties in our judging panel in deciding the prize award!

The remainder of the second day saw the attendees being updated by an array of speakers renowned in their own field of expertise. This was a truly stellar line-up that involved nationally and internationally recognised speakers. Professor Ian Needleman, fresh from his Presidency of the BSP, updated us on clinical periodontology; Mr Mark Hunter showcased contemporary endodontics with a refreshing patient centred approach; Peter Briggs showed us how to apply our skills and knowledge in managing failing restorations; Professor Craig Barclay brought us bang up to date in how to manage the edentulous atrophic

mandible; Professor Alex Milosevic rounded off the conference with a great presentation on the contemporary management of tooth wear.

The Conference concluded with the inauguration of Professor Philip Taylor as the President for 2018 -2019 and he invited everyone to what promises to be an excellent Conference in the iconic Royal College of Physicians in Regent's Park, London.

The success of the Liverpool Conference was as a result of the combined efforts of BSSPD Council members, and particularly our Administrative Manager Mrs Kirstin Berridge, plus of course the support of the membership.

SCHOTTLANDER POSTER PRIZE **WINNER 2018**

The BSSPD Conference traditionally attracts a large number of poster presentations. This year was no exception and the competition was therefore intense. The winner was Mr Andreas Chatzipantelis for a poster entitled "A comparative audit in the failure rate between traditional fabricated and CAD/CAM designed and selective laser sintering (SLS) manufactured Co/Cr frames at the Cardiff University Dental Hospital". The poster explored the difference in results between cobalt chromium frameworks produced by CAD/CAM and SLS metal manufacturing technologies and traditional technology from chrome frameworks. The result of failures from 278 clinical cases could not differentiate between the two methods of manufacturing. The CAD/CAM methodology saved up to 4 hours of technician time but the cost of the technology was found to be high and required tech savvy technicians.

Mr. Ioannis Papadopoulos (left of photo) is a final year Prosthodontic DClinDent Postgraduate Student at Queen Mary, University of London (Barts & The London School of Medicine and Dentistry).

Having done his undergraduate training at The National and Kapodistrian University of Athens, Mr Papadopoulos has grown particular interests in the use of ceramic materials, digital prosthodontics and implant dentistry.

We congratulate Mr Papadopoulos for jointly winning the Schottlander Oral Presentation Prize with Mr. Butterworth.

BONE GRAFTING NEEDS FOR HYPODONTIA PATIENTS UNDERGOING DENTAL IMPLANT TREATMENT AT A UK DENTAL HOSPITAL.

Ioannis Papadopoulos, Shakeel Shahdad

Introduction

The prevalence of hypodontia in the British population is estimated at 3.5-6% and is a priority group for implant treatment under the NHS requiring a multidisciplinary approach. Due to the nature of the condition, alveolar ridge often has significantly reduced volume which necessitates bone augmentation either simultaneously during implant placement (sGBR) or, as a block graft using two-stage approach. Alternatively, narrower diameter or shorter implants can avoid or at least reduce the need for more invasive bone grafts.

Aim

The primary aim of this study was to identify the percentage of hypodontia patients requiring bone augmentation for replacement of missing teeth with implants in a large tertiary referral centre. The secondary aim was to identify the types of bone grafting procedures and types of implants (diameter and length).

Materials and Methods

Patients that received dental implant treatment at the Royal London Dental Hospital between 2011 to 2015 were included in the study. They had to be aged 17 or above, received implants for replacing congenitally missing teeth, and had all the necessary information in their clinical notes. The clinical records were searched and data recorded for details of missing teeth, sites and types of implants placed, and the timing and type of any bone graft procedures.

Results

Fifty-three patients with 117 dental implants fulfilled the inclusion criteria. 55% of the implants (n=64) replaced anterior and 45% (n=53) replaced posterior teeth.

- 62% (n=33) of patients had bone grafting; with 11% having a block graft, and 51% sGBR using deproteinized bovine bone and porcine collagen membrane.
- At the implant level, 65% (n=77) were placed with bone grafting; 10%with a block graft and 55% with sGBR.
- 70% of the anterior implants (n=45) were placed with sGBR and 19%(n=12) after a block graft. All the block grafts were carried out in the mandibular anterior area.
- 38% of the posterior implants (n=20) were placed with sGBR and none needed a block graft. 72% of the posterior implants (n=38) had a diameter greater than 3.3mm. Out of these, 55% were placed with sGBR. 3.3mm diameter implants replaced 28% (n=15) of posterior teeth and 13%of which were placed with sGBR.
- 29% of the maxillary posterior implants were 8mm in length and 71%were 10mm in length. 16.5% of the maxillary posterior teeth were placed with sinus augmentation & sGBR.

Conclusions

Within the limitation of this study, it can be concluded that in hypodontia patients the majority of implants, especially in the anterior region will require augmentation. Less invasive implants seem to reduce bone grafting needs.

Webinars for 2018/2019

Tim Friel 19/10/18
Gerodontology – Treatment planning and caring for the very elderly

Michael Myint 20/11/18
Ceramics the choice?

Ioannis Papadopoulos 12/12/18
Excellence in clinical photography!

Raj Dubal 17/01/19
Endodontic diagnosis in Prosthodontic care?

Claire Field 04/02/19

Paul Ryan 20/02/19
Periodontal Considerations of Prosthodontic Care?

Each webinar will start at 7.30pm and will provide up to 2 hours of CPD.
The webinars will remain free to our members (£10 per webinar for non-members).
More details and booking via our website.

Schottlander Oral Presentation Structured Abstract

Mr CJ Butterworth

TITLE: Primary vs Secondary Zygomatic Implant Placement In Head And Neck Cancer Patients - A 10 Year Prospective Study.

AUTHOR: Butterworth, Chris

ABSTRACT:

Introduction: Zygomatic Implants provide excellent remote anchorage opportunities to support dental & facial prostheses in head & neck oncology patients following maxillary & mid-face resection and can be placed at primary surgery or a later date

Method: The primary aim of this prospective study was to examine the survival of zygomatic (and modified zygomatic implants) used in the management of consecutive patients with maxillary & mid-face malignant disease in a high volume head & neck cancer centre. The secondary aim was to examine whether the placement of zygomatic implants at the time of primary cancer surgery carried any advantage in terms of implant survival and utlisation compared to placement at a secondary time-point following successful oncology treatment

Results: 53 patients received 140 zygomatic implants as part of their rehabilitative treatment for maxillary/ mid-facial disease.
4 patients died prior to restoration and their 9 implants were excluded from the analysis, leaving a study population of 49 patients with 131 zygomatic implants. 27 patients received primary placed implants at the time of tumour resection whereas 22 patients were treated secondarily.
The primary and secondary groups were fairly evenly matched in terms of gender, age with smoking (see table). The secondary group was disadvantaged in terms of radiotherapy with 36% of patients having been irradiated prior to surgery. 9 implants were removed from 4 patients, 5 within 3 months of placement, 2 within one year and 1 after 3 years of function. Primary placement cases demonstrated improved survival (96% v 89%) although this was not statistically significant at the implant (Fishers exact test p=0.17) or patient level (Fishers exact test p=0.31). All surviving implants were utilised and the overall prosthetic follow-up of our cohort was 24 + 20 months with the longest follow-up being 70 months. A small number of additional dental implants were used in each group demonstrating the reliance now placed on zygomatic implants with their excellent primary stability and robustness, even in high-risk situations.

Conclusion: The use of zygomatic implants in the management of oro-facial malignancy is a predictable prosthetic treatment modality to support complex oral and facial prostheses. The installation of implants at the time of primary tumour resection is advantageous and can result in high implant survival and useability.

Heraeus-Kulzer Undergraduate Award

The Heraeus--Kulzer Undergraduate Award is made for the best critical review received by the BSSPD. This year proved to be no smooth road for our applicants. Not only was there more applicants this year competing for the award but the standard was equally impressively high (which had pleasantly proved difficulties for our judging committee to reach a decision). As Simon Cowell's famous words are on ITV1, "there can only be one winner".

We would like to congratulate all the applicants for their stellar submissions and work. We interviewed this year's

What was your reaction when you heard you won?

I was so happy when I received the email notifying me that I had won. It was such an honour to be chosen as this year's winner for the Heraeus-Kulzer Undergraduate Award by the BSSPD and getting to attend the annual conference.

Have you figured out yet which area of dentistry excites you?

Whilst I am very much enjoying all aspects of dentistry, so far, I have been particularly interested in restorative dentistry and especially my prosthodontics experiences. So, when I found out about this award, I was very keen to enter and in all honesty, I didn't think I would win the prize when I submitted my essay!

Tell us a bit about your critical review?

I chose to focus my critical literature review on the current state of digital intra-oral scanning systems (DIOS) for use in fixed prosthodontics, comparing them with conventional impression techniques. This is an area of dentistry that really excites me – the advances of digital dentistry will play a big part in my future practising career, so I wanted to proactively learn more about these digital scanning systems that are becoming widely used.There is a growing body of research evaluating the accuracy of digital scans, which is proving that it is certainly possible to consistently achieve impressions of high precision and accuracy, both within an experimental laboratory setting and also clinically. There are of course still a number of limitations, such as: high start-up costs, an inability to detect sub-gingival margins and errors in full arch scans. This means it is unlikely for conventional impression methods to be completely replaced in the near future, or ever. However, as the technology advances it is arguably only a matter of time before the DIOS are readily affordable and deliver consistent significantly superior levels of accuracy.

I really enjoyed the BSSPD Conference in Liverpool, getting to learn more about how prosthodontics and restorative dentistry plays a big part in treating patients with cleft lip and palate. Thank you for the support and inspiration with my dental journey.

Are you really giving informed consent?

Evaluation of patients' understanding of dental treatment modalities

D S Panchal

Aims: To investigate patient's knowledge and understanding of various dental treatment modalities, to ascertain whether any statistical correlations exist with age, gender and previous exposure to treatment, and to identify the influence of the internet as a source of information relating to dental treatments.

Methods and Design: 234 self-administered paper questionnaires with closed multiple choice options were completed by members of the public across the West Midlands.

Results: 234 paper questionnaires were completed and analysed. There is no difference in understanding of dental treatment modalities between males and females. Males scored an average of 7.9 compared to 7.7 for females out of a possible 9. There is no correlation in understanding of dental treatment modalities across different age ranges. Patients whom identified themselves as previously experienced a particular treatment, correctly understood what the treatment involved in 100% of the cases*. 1 in 5 respondents chose the internet as their main source of information for dental treatment options.

Conclusion: Informed consent is an important part of everyday dentistry. Ensuring patients have a basic understanding of treatments allows a more informed discussion between the dental professional and the patient. When treatment options are to be discussed and treatment plans devised the importance of ensuring patients are aware of what options are available cannot be stressed enough. The increasing reliance of patients on the internet as a source of information reinforces the role of the dentist to provide accurate customised advice for each and every patient.

Acknowledgments: I would like to thank Dr.Hirschfeld and Dr.Carroll for their continued help and support.

The questionnaire had been specifically designed to identify whether members of the public understand treatment name terminology used every day by dental professionals. The 9 multiple choice questions included one correct answer describing the treatment modality and two incorrect answers. The incorrect answers were chosen based on incorrect answers given by participants during the pilot study. Beneath each of the 9 multiple choice questions, a subsequent multiple-choice question was posed to ascertain their level of confidence in answering the above question. The multiple-choice options for this question included; not at all confident, moderately confident and very confident. This allowed identification to a greater degree whether the correct answer was obtained by knowledge and understanding of the treatment modality or by chance.

The 9 treatment modalities assessed within the questionnaire included:

- Dental filling
- Dental crown
- Dental bridge
- Veneer
- Denture
- Orthodontics
- Dental implant
- Scale and polish
- Root surface debridement

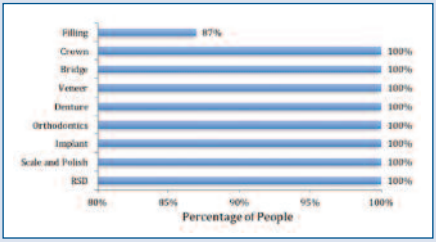


Figure 3: Percentage of people correctly understanding treatment they have undergone

WHO CAN YOU SPOT AT THIS YEAR'S CONFERENCE?

In-Training Award 2017
University of Bern, Switzerland

Conor McLister

In August 2017 I was fortunate to be able to spend time at the School of Dental Medicine, University of Bern, Switzerland. This included attending the International Team for Implantology Education week and spending time with co-investigators on the Straumann ProArch II study.

This was the 27th ITI Education week held at the University of Bern and was delivered by faculty members of the Department of Oral Surgery and Stomatology, Department of Periodontology and Department of Reconstructive Dentistry and Gerodontology. Speakers included Professor Daniel Buser, Professor Urs Belser, Professor Urs Bragger, Professor Anton Sculean and Professor Martin Schimmel. The 5 day programme involved 27 lectures, 2 case based discussions, 5 live surgeries and 4 hands-on workshops. Titled 'Evidence-Based Clinical Concepts in Implant Dentistry', the course presented contemporary evidence based treatment concepts for the rehabilitation and complete and partially edentulous patients. I was joined on the course by dentists and trainees from across Europe, Asia, Africa, North America, Australia and South America. This provided a great opportunity to discuss how implant supported prosthodontics is delivered around the world and to develop relationships with fellow trainees and specialists in different countries.

Professor Buser delivered an introductory lecture and gave his views on current trends within implant dentistry. He presented data from the University of Bern, where they treat on average 550 patients per year with on average 800 dental implants. More than 50% of patients are treated for single tooth replacement, which contrasts with our department in Belfast where NHS criteria limits implant provision to patients with more significant edentulism. The mean age of patients treated in Bern is now over 60 years old, with a significant shift towards implant provision in the elderly population over the last 15 years. This reflects the trends of ageing populations and increased tooth retention in developed countries. Professor Buser then summarised implant treatment strategies in Bern, which focus on the least number of surgical interventions, reduced morbidity and reduced healing and overall treatment periods, to provide aesthetic outcomes with long-term stability.

Faculty members then provided a series of lectures on current evidence relating to medical risk factors, bone and soft tissue integration, periodontally compromised patients and the use of CBCT in implant patients. Tim Joda, Head of the Section for Digital Reconstructive Technology and Implant Dentistry described the benefits of a complete digital implant workflow using CBCT, intra-oral scanning, 3-D printing and CADCAM reconstructions. He also presented research carried out in Bern which suggests that this shortens total work time by 50% and reduces production costs by 50% when compared to a semi-digital workflow.

Appraisal of a complete digital implant workflow was particularly interesting as it demonstrated the clinical protocol for the Straumann ProArch II study. This is a multi-centre randomised controlled clinical trial supported by Straumann, which is being run between the University of

Participants of the 27th ITI Education Week, University of Bern, with Course Directors and Faculty members

Bern and Queen's University Belfast. Under principal investigator Dr Gerry McKenna, I am part of the Belfast study team, and was able to meet and discuss study progress with co-investigators in Bern, including the principal investigator, Professor Martin Schimmel.

Further lectures focused on treatment planning, risk management and surgical principles and procedures in the anterior and posterior regions, with and without bone defects. Primary research relevant to bone grafting, bone substitutes and barrier membranes was appraised, and Professor Anton Sculean discussed clinical techniques and the evidence for soft tissue augmentation around dental implants. Professor Urs Belser described his clinical protocols for implant prosthodontics in the aesthetic zone. Referencing many of his own studies, he highlighted the importance of correct oro-facial surgical positioning and high quality provisional restorations, in achieving long term stable aesthetic outcomes. His prosthodontic hands-on session allowed me to draw on his vast clinical experience directly, and I have incorporated his chairside provisional techniques into my daily practice, with improved aesthetic outcomes. Professor Urs Bragger led case based discussion sessions, highlighting the emphasis that is placed on prevention, stabilisation and maintenance in Bern. He also presented lectures exploring long term data on hardware complications associated with fixed implant prostheses, whilst Gianni Salvi discussed biological implant complications. As with all lectures an evidence based approach was taken to clinical management.

In general I found my experience in Bern extremely beneficial. The education week provided a comprehensive review of the evidence for current treatment concepts in implant dentistry. It also allowed me to meet personally experts in the field of prosthodontics and implant surgery, and build on already established collaborative research links. There was very much an ethos of cooperation between disciplines, which is reflected in the excellent clinical outcomes that the

centre achieves. There is also a strong emphasis on research with all treatment concepts supported by long term data. Should they get the opportunity, I would strongly recommend trainees to attend the University of Bern, and thank BSSPD for supporting me in my visit.

With Professor Martin Schimmel – Head, Division of Gerodontology, Department of Reconstructive Dentistry and Gerodontology

BSSPD Awards

The British Society of Prosthodontics offer a number of awards annually, ranging from undergraduates to highly esteemed members of the society. For more information on how to apply for these awards, please visit the awards section of our website: http://www.bsspd.org/Awards.aspx

Experiences of 66 years in Prosthetic Dentistry
Dr. Peter Frost

Our immediate past president, Professor Phil Smith asked me how long ago I joined the Society. Apparently it was in 1973 and my first conference was in Birmingham under the presidency of Professor John Osborne the writer of the book Dental Technology for Students. Secondly he enquired whether I could write something for our newsletter about the changes in dental prosthetics during this time. As many of you know I had an apprenticeship as a dental technician with my father in the 1950s having failed my 11 plus exam. This was at a time when many dentists were making a fortune in the early days of the National Health Service (NHS). There was only my father and myself and we had cases spilling out of the small lab and down the stairs. Most dentures were acrylic but we had the odd repair or acrylic allergy case where we used vulcanite. Rarely, we made a swaged denture palate using a sandbox and lead, zinc and tin dies and counter dies. We had to frequently anneal the gold palate and beat it with a hammer made from horn. The retention tags were soldered on later. A cast gold palate would be too heavy. Porcelain teeth were used for the vulcanite and later on at the Royal Dental Hospital for acrylic dentures.

I was called up for National Service in the Royal Air Force and was trained as a Dental Clerk Orderly (1). I re-mustered as a dental technician. Whilst at Cardington we produced wrought white gold (Pallacast) clasps and rests for partials, which we soldered together. Cobalt Chrome was in its infancy and would be sent to the large laboratories like Uxbridge. We worked with Coastal Command and some of the stations were remote, for example the Orkneys. The RAF arranged my further education with weekly trips to The Borough Polytechnic for me to prepare for my final City & Guilds. On demobilisation I worked as a Max Fact technician at the West Middlesex Hospital.

We still used cast silver cap splints and burnt the midnight oil having them ready for the next day. My next move was to the Royal Dental Hospital as a teaching technician. Initially I assisted in research and making periodontal splints for such famous people as John Zamit and John Manson. These initial years were with Professor Arthur Chick and with the teaching he was quite innovative in an uncrowded curriculum. We could produce on occasion, Gothic Arch tracing and for the distal extension lower dentures a metal framework using the Applegate technique with the painting of wax on the acrylic saddles. This was to compensate for the movement downwards of the denture saddles in function. All of this was great fun for the undergraduates including teaching them how to make a shield of the RDH coat of arms and taking two months over it (2).. If a patient had just a few posterior teeth left then we extracted those before creating the complete/ complete (C/C) immediate replacement (IR) dentures. The posterior saddles were tried in and then the technician and student would remove the plaster teeth and some of the labial part of the casts, creating an interseptal alveolotomy preparation. Before fitting the IR the local anaesthetic we extracted the 12 anterior teeth. With the lower cast we smoothed the areas where the teeth had been but with the maxillar, reflected a flap, 321123, removed the interseptal bone and the labial bone was collapsed in after cutting through the canine eminence and the sutures were placed. This was supposed to compensate for the later resorption of the anterior labial plate. As you can guess this was not based on research.

We had a period of producing clear base plates for the C/C and these were waxed up for the record and finish stages. I don't think it was an overwhelming success, especially for the close vertical dimension patients. We used acrylic anterior teeth and porcelain

posteriors. Our Australian friend Professor Lee had written a book on choosing the moulds of anterior teeth. Wide upper face or wide lower face determined the type of mould. We used facebows for the jaw registration stage and performed check records with the completed acrylic dentures. After entry as a mature student, ten years older than my contemporaries we spent a year at Barts passing our 2nd BDS. Bob Nairn became our head of department. He had very definite ways of teaching. Knowing my background we had many conversations/arguments on the production of dentures. We had the BDS part 4 which made many undergraduates (U/G) stressed. We performed certain procedures sometimes using members of staff. Mr Down had a C/C which had no free way space, to make him appear younger. To the U/Gs he would whisper, "I have no freeway space". At this time all removable prosthetic work was produced in house.

On qualifying I bought the dental practice from Ron Gain, a practitioner and a part time Consultant in Prosthetic Dentistry at Guy's. Ron was a very generous person which made my transition as principal very easy. For the years after the World War Two, Ron employed four full time technicians in a dental laboratory which was part of the establishment. Considering that Ron spent 1½ days at Guy's indicated that his output in denture work was phenomenal (3) After a year of qualifying I was back teaching at the RDH one day a week and eventually we were closed down in 1985. I transferred to Guy's. During the period there we went through various name changes, UMDS. GKT and the KCL Dental Institute. Initially work was performed in house, then the U/Gs' work was sent to an outside laboratory and then later the demonstrators' (clinical lecturers') work. Eventually Part 4 BDS exam finished as did BDS 2. In the late 80s, we had the AIDS epidemic, we wore gloves and the cross infection control became very strict. I had up until 2010 when I retired about 8-10 U/Gs on the clinic. The process in the clinic was, first wash your hands thoroughly, don the small size gloves, mask, apron and spectacles. This procedure was performed about every 5 minutes as I moved down the line. We had demonstrations at the start of the session and tutorials at the end. The prescription to the lab was not always carried out as it should have been. I am not blaming them because it is a very difficult job. With my background fortunately I was able to take another jaw registration and set up at the chair if there was not much going on. We had a Dentatus articulator which could be used plasterless with the mandibular arm. In practice the plasterless articulator was invaluable for checking records and other changes. So from 80% of the adult population in the 1940s who were edentate to just 6% in 2009 this is the most significant statistic during recent times. This change in demographics was felt in London, few denture referrals in practice and at the dental institute the U/Gs are lucky to perform one C/C during their time now. With partials where one has to perform the rest vertical dimension procedure these are also classified as complete dentures. Our northern colleagues don't have these problems.

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1. P.M.Frost. The History of the Royal Air Force Dental Branch. A personal perspective. Dent Hist. Vol 62 (2). July 2017.
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3. P.M.Frost. Ron Gain and his dental practice before and during the Second World War. Dent Hist (2). July 2015.

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If you wish to be included on the search database you need to opt in – just log in to the members section of the website, click on 'Edit members details' then 'edit primary contact details', then ensure the 'yes' button for 'show details on website' is selected. Don't forget to click the red save button once you have amended your details. If you practice from multiple locations you can add each practice location to improve your chances of appearing in the search results. Please note that since May 25th 2018, your practice may no longer be listed if you did not reply to Kirstin's email confirming that you still wanted to be listed.

GDPR changes

Thank you to all of you who have completed your email preferences following the changes in May 2018 to the data protection law. However, we still have 142 members who haven't completed their preferences – this means that you won't receive emails from us about our events, events run by other organisations, job vacancies, surveys, research studies or consultations etc. To set your email preferences or to amend them, please log in to the members only area of our website, click on 'Edit my details' and remember to click the red save button after making any changes.

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	3. Surgical guide designs
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Details and registration at https://www.advanceddentistry.co.uk/soft-tissue-aesthetics.php

FROM THE EDITOR

Volume No. 24 July 2018

The Times They Are a-Changin'. Laboratory manufacturing and dental techniques is in a spin. Technology is pushing our boundaries. Social media is transforming our standards. Sustainability, predictability, consistency demands are increasing. Millennial Dentistry is right here, right now.

Dentistry as we now know it, is a fast world and evolving quickly, pushing the boundaries of what we can do. It is an exciting time to be involved, as many of you may agree. Therefore with this volume, we wanted to bring focus to the core of our members (ultimately this is news about you) and see what boundaries you have been pushing. It is exciting to hear the thought processes, that challenges conventional concepts from our members. We are delighted to see the first half of 2018 bring along many achievements amongst our members and I would like to extend my congratulations to them for their inspirational contributions to prosthodontics. Yet it is definitely not the time to stop expressing, discussing or asking controversial questions. I would love to hear from you all, so please do not hesitate to contact me and leave any comments.

I'm thankful to be your newsletter editor and share the great work of our society to you all. I must thank Dr. Jennifer Jalili for her amazing work with the newsletter in previous years. I will put my hands up and say these were big shoes to fill. I would also like to extend my gratitude to Kirstin Berridge to ensure the newsletter came to fruition in a smooth manner and for being a stellar team player. We must also express our gratitude to Dr. James Field for being our photographer and Prof. Taylor for his support. I look forward to cross paths with you all one day and wish you the best till the next newsletter.

MICHAEL myint

NEWSLETTER EDITOR Michael Myint
CONTRIBUTING EDITORs Kirstin Berridge James Field Phil Taylor Phil Smith

BE INSPIRED

Dr. Linda Greenwall, has been awarded the British Empire Medal. The award was in conjunction with the Queen's Birthday Honours List. This award recognises Dr. Greenwall's contribution and services to the dental profession both in the UK and abroad.

Dr. Meena Ranka and her team were nominated for the NHS 70 parliamentary awards. The MP Rt. Hon. Mr Ben Wallace and Mrs Brookes, ADMD at the Royal Preston Hospital, recently nominated the Restorative Dentistry service along with OMFS, laboratory, nursing and secretarial teams in The Excellence in Cancer Care Award Category in the NHS70 Parliamentary Awards. On this occasion the nomination did not make it to the official shortlist as the NHS Parliamentary Awards team received over 750 fantastic nominations from across England and the regional teams had a difficult decision in selecting 40 nominations for their shortlist. Their team was thanked for the nomination. Their teams are extremely proud for the nomination and recognition of the service.

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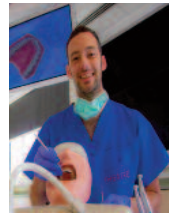

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