6 PUBLICATIONS

6.1 *Journals*

Journal articles in Press:

- Dental Update (Accepted for publication – 3 part series):

The Application of Occlusion in Clinical Practice

Banerji S, Mehta S

Published Articles:

Year 2018:

Br Dent J. 2018 Mar 9;224(5):333-341. doi: 10.1038/sj.bdj.2018.174. Epub 2018 Mar 2.

The restorative management of tooth wear involving the aesthetic zone.

Mehta SB, **Banerji S**.

Abstract

The aim of this article is to describe a systematic approach that facilitates the establishment of a clear and appropriate diagnosis when a dentate patient presents with tooth wear involving their aesthetic zone. It will also detail the protocols that are required to allow for the development of an acceptable aesthetic prescription within the limits of the functional constraints presented by the patient (where active restorative intervention may be indicated), as well as to communicate the manner by which this information can be transferred to ultimately enable the successful and predictable rehabilitation of the affected areas. An overview will also be provided of the tooth-coloured dental materials and restorative techniques that have been commonly applied to deliver the predictable and effective dental care of worn teeth in the aesthetic zone.

Year 2017:

Br Dent J. 2017 Aug 25;223(4):272-278. doi: 10.1038/sj.bdj.2017.713.

An evaluation of the influence of teeth and the labial soft tissues on the perceived aesthetics of a smile.

Chan MYS, Mehta SB, **Banerji S**

Abstract

Objective The aim of this study was to investigate how the lips and teeth may affect the perceived aesthetics of a given smile. Lips and teeth were collectively assessed in different fields of view to see how they may contribute to smile aesthetics. The perception of 'beauty' was assessed to determine whether differences existed between; dentists, non-dentists, males and females.Methods Five subjects were photographed to produce the following views: 1) retracted anterior teeth; 2) lips at rest; 3) zoomed smile; and 4) smile showing the lower face. Images were compiled in a survey questionnaire and shown to respondents who ranked the subjects in order of aesthetic appeal. Kendall's coefficient of concordance (W) and median rank scores were used to determine the statistical significance.Results All groups demonstrated statistically significant agreement in the perception of beauty. Both the teeth and lips seemed to contribute similarly to the attractiveness of a smile. Dentists seemed to be more influenced by teeth in a zoomed smile view, however, this was negated when viewing a broader field of view. All other groups showed no difference in perception of aesthetics with changing field of view.Conclusion Both lips and teeth seem to contribute to the aesthetic appeal of a smile. Dentists may have a tendency to place a disproportionate weight to teeth when assessing a smile close up.

Br Dent J. 2017 May 12;222(9):659-666.

The management of cracked tooth syndrome in dental practice.

Banerji S, Mehta SB, Millar BJ.

Abstract

Cracked tooth syndrome is a commonly encountered condition in dental practice which frequently causes diagnostic and management challenges. This paper provides an overview of the diagnosis of this condition and goes on to discuss current short and long-term management strategies applicable to dental practitioners. This paper also covers the diagnosis and management of this common

condition and aims to inform clinicians of the current thinking, as well as to provide an overview of the techniques commonly used in managing cracked tooth syndrome.

J Adhes Dent. 2017;19: 111-119

Severe Tooth Wear: European Consensus Statement on Management Guidelines.

Loomans B, Opdam N, Attin T, Bartlett D, Edelhoff D, Frankenberger R, Benic G, Ramseyer S, Wetselaar P, Sterenborg B, Hickel R, Pallesen U, Mehta S, **Banerji S**, Lussi A, Wilson N.

Abstract

This paper presents European expert consensus guidelines on the management of severe tooth wear. It focuses on the definition of physiological vs pathological tooth wear and recommends diagnosis, prevention, counseling, and monitoring aimed at elucidating the etiology, nature, rate and means of controlling pathological tooth wear. Management decisions are multifactorial, depending principally on the severity and effects of the wear and the wishes of the patient. Restorative intervention is typically best delayed as long as possible. When such intervention is indicated and agreed upon with the patient, a conservative, minimally invasive approach is recommended, complemented by supportive preventive measures. Examples of adhesive, minimum-intervention management protocols are presented.

Int J Oral Maxillofac Surg. 2017 Apr;46(4):518-523.

Inferior alveolar neurovascular bundle repositioning: a retrospective analysis.

Sethi A, **Banerji S**, Kaus T

Abstract

In this study, patients with an insufficient height of bone for implant placement in the posterior mandible were treated by repositioning of the inferior alveolar neurovascular bundle (IANVB). These patients were divided into two groups: those in group A (n=69) did not require a bone graft and implants were placed at the time of nerve repositioning; those in group B (n=9) received bone grafts in conjunction with nerve repositioning and implants were placed upon maturation of the grafts. One hundred and twenty-one nerves were repositioned in 78 patients and 308 implants were placed. Three implants failed within the first 10 months after

placement. With a certainty of 95%, an estimated overall mean survival rate better than 97.8% was observed after a mean observation period of 84.5 months. The recovery of sensation was monitored using standardized tests. The recovery of sensation varied from 24h to 6 months. Five patients reported some residual altered sensation. The technique of repositioning the IANVB provides an effective way of treating the atrophic posterior mandible with acceptable morbidity and a high implant survival rate; however the risk of dysesthesia must be acknowledged and patients properly informed.

Year 2016:

EC Dental Science. ECO.01 (2016): 24-27

Contemporary Tooth Wear Management

Mehta SB, **Banerji S.**

"As our knowledge and understating of occlusal concepts and adhesive dentistry has evolved, it has become possible to provide restorative care for patients with TW in a more predict- able manner and a less invasive approach than was previously possible"

Dent Update. 2016 Mar; 43(2):106-8, 110-2.

A Guided, Conservative Approach for the Management of Localized Mandibular Anterior Tooth Wear.

Mehta SB, Francis S, **Banerji S.**

Abstract

The successful management of the worn mandibular anterior dentition may present an awkward challenge to the dental operator. The purpose of this article is to describe a case report illustrating the use of a guided, three-dimensional protocol for the ultra-conservative and predictable restoration of the worn lower anterior dentition using direct resin composite. This technique utilizes information based on established biomechanical and occlusal principles to fabricate a diagnostic wax-up, which is duplicated in dental stone. This is used to prepare a vacuum-formed modified stent, assisting the clinician to place directly bonded resin composite

restorations to restore the worn lower anterior dentition. The technique, described in 2012 and referred to as 'injection moulding' has the potential to offer optimal form, function and an aesthetic outcome in an efficient manner. CPD/Clinical Relevance: This article aims to describe an alternative technique to simplify the processes involved with restoration of worn lower anterior teeth.

Year 2015:

Dental Update 2015; 42: 721-734

Class II Resin Composites: Restorative Options.

Patel M, Mehta SB, **Banerji S**

Abstract

Tooth-coloured, resin composite restorations are amongst the most frequently prescribed forms of dental restoration to manage defects in posterior teeth. The attainment of a desirable outcome when placing posterior resin composite restorations requires the clinician to have a good understanding of the benefits (as well as the limitations) posed by this material, together with a sound knowledge of placement technique. Numerous protocols and materials have evolved to assist the dental operator with this type of demanding posterior restoration. With the use of case examples, four techniques available are reported here. CPD/Clinical Relevance: This article explores varying techniques for the restoration of Class II cavities using resin composite.

Year 2014:

Journal of dentistry 42 (2014) 862 – 871

A multi-centred clinical audit to describe the efficacy of direct supra-coronal splinting - A minimally invasive approach to the management of cracked tooth syndrome.

Banerji S, Mehta SB, Kamran T Kalakonda M, Millar BJ

Abstract

Objectives

This audit looked at the use of direct composite splinting to manage cracked tooth syndrome (CTS).

Methods

Patients who had been assessed as having CTS were offered the treatment of a directly bonded, composite overlay restoration placed in supra-occlusion. Cases were reviewed up to 3 months later.

Results

In all, 151 restorations were followed up in the audit of which 131 were successful at 3 months. The remaining 20 restorations failed due to pulp complications (11), failure of the composite (5) or intolerance to the high restoration (4). Of the 131, patients described transient problems with chewing (94), composite breakage (13), TMD (1), phonetics (1), increased mobility (1) and tender to chewing (1).

Conclusions

This is a successful non-invasive method of managing CTS in the short term for patients willing to accept transient effects.

Dent Update 2014; 41: 306 -312

Anterior Tooth Alignment – Recommendations for stability.

Aulakh R, **Banerji S**.

The Dentist Jan 2014 vol.30 No 1: 62-64

Avoiding Endo – A new way of dealing with deep carious lesions.

Banerji S

<u>Year 2012:</u>

Aesthetic Dentistry Today. 2012 Nov vol 6 no 4 80-82

The "blended way" forward

Banerji S

Dentistry 20th September 2012. pg 33-34

Magnification – a closer look.

Mehta SB, **Banerji S**

Br Dent J. 2012 Feb 24;212(4):169-77

Current concepts on the management of tooth wear: part 4. An overview of the restorative techniques and dental materials commonly applied for the management of tooth wear.

Mehta SB **Banerji S** Millar BJ Suarez- Feito JM

Source

Department of Primary Dental Care, King's College London Dental Institute, Bessemer Road, London, SE5 9RW.

Abstract

This final article of the four part series on the current concepts of tooth wear will provide the reader with an evaluation of the data available in the contemporary literature with regards to the survival analysis of differing restorative materials, and their respective methods of application to treat tooth wear. It is vital that the dental operator is familiar with the role of differing materials which may be used to restore the worn dentition, some of which may prove to be more suitable for the management of particular patterns of tooth wear than others. The active management of tooth wear unfortunately commits the patient to a lifelong need for considerable maintenance, and it is imperative that this is understood from the outset.

Br Dent J. 2012 Feb 10;212(3):121-7

Current concepts on the management of tooth wear: part 3. Active restorative care 2: the management of generalised tooth wear.

Mehta SB **Banerji S** Millar BJ Suarez- Feito JM

Source

Department of Primary Dental Care, King's College London Dental Institute, Bessemer Road, London, SE5 9RW.

Abstract

Paper 3 of this series on the current concepts of tooth wear management will focus on the provision of active restorative intervention for cases presenting with generalised tooth wear. The use of both contemporary adhesive and traditional conventional techniques applied to treat cases of generalised tooth wear will be

discussed, including a consideration of the merits and drawbacks of each approach respectively.

Br Dent J. 2012 Jan 27;212(2):73-82

Current concepts on the management of tooth wear: part 2. Active restorative care 1: the management of localised tooth wear.

Mehta SB **Banerji S** Millar BJ Suarez- Feito JM

Source

Department of Primary Dental Care, King's College London Dental Institute, Bessemer Road, London, SE5 9RW.

Abstract

This second of the four part series of articles on the current concepts of tooth wear management will focus on the provision of active restorative care, where the implementation of a preventative, passive approach may prove insufficient to meet the patient's expectations, or indeed prove to be sufficiently adequate to address the extent of the underlying pathology to the desired level of clinical satisfaction. The active restorative management of cases presenting with localised tooth wear (of either the anterior, posterior, maxillary or mandibular variety) will be considered in depth in this paper, including a description of the commonly applied techniques and treatment strategies, where possible illustrated by case examples.

Br Dent J. 2012 Jan 13;212(1):17-27

Current concepts on the management of tooth wear: part 1. Assessment, treatment planning and strategies for the prevention and the passive management of tooth wear.

Mehta SB **Banerji S** Millar BJ Suarez- Feito JM

Source

Department of Primary Dental Care, King's College London Dental Institute, Bessemer Road, London, SE5 9RW.

Abstract

The aim of this series of four articles on tooth wear management is to provide the reader with the necessary information in order to be able to successfully manage

cases of tooth wear, regardless of the cause, severity and location of the wear pattern seen. The content will largely focus on contemporary clinical techniques, illustrated where possible by case examples. Emphasis will be placed on 'additive adhesive techniques' utilising fixed prosthodontic protocols; however, cases of tooth wear amongst partially dentate patients involving the use of removable prostheses will also be described. The importance of patient consent and contingency planning will also be discussed. Paper 1 will describe the assessment of the wear patient, including the rationale for the planning of dental care. Also discussed will be the administration of preventative and passive management strategies for cases displaying tooth wear.

Year 2011

Dent Update. 2011 Nov;38(9):594-6, 598-600, 603.

Aesthetic composite veneers for an adult patient with amelogenesis imperfecta: a case report.

Brignoll I, **Banerji S**, Millar B.

Source

King's College Dental Institute, London, UK.

Abstract

This case has been presented as part of the continual assessment requirement for the MSc in Aesthetic Dentistry, King's College Dental Institute. Amelogenesis imperfecta (AI) is a hereditary disorder of enamel formation, affecting both the permanent and deciduous dentitions. It can be classified into hypoplastic, hypomaturation and hypocalcified types and presents with different hereditary patterns. The aim of this article is to provide an overview of amelogenesis imperfecta, including a detailed case report for an aesthetically concerned adult patient presenting in general practice with a Witkop's Type IA defect managed with the placement of direct, layered resin composite veneers. CLINICAL RELEVANCE: Amelogenesis imperfecta patients are susceptible to the restorative cycle of replacement restorations like any other patient, but start with a distinct disadvantage.This case report demonstrates a minimally invasive, relatively simple and cost-effective option for the aesthetic correction of a case of hypoplastic amelogenesis imperfecta with layered composite veneers. Dent Update 2011; 38:594-603

Dent Update 2011 Oct;38(8):535-6, 539, 542-4 passim.

Aesthetic resin onlay restorations: 'rationale and methods'.

Panchal N, Mehta SB, **Banerji S**, Millar BJ.

Source

KCL, London, UK.

Abstract

Resin composite restorations have gained increasing popularity over the past two decades. This has been largely driven by a patient-orientated demand for the use of aesthetic restorative materials. It has occurred concomitantly with an improvement in the mechanical properties of available materials, and advances in our knowledge of resin bonding. Onlay restorations are advocated for a plethora of clinical applications. This paper considers the role of adhesive onlay restorations fabricated in resin composite in contemporary restorative practice, including the presentation of two case reports. Clinical Relevance: This case report describes a minimally invasive, aesthetic solution to provide cuspal coverage by means of either a direct or indirect resin composite onlay restoration, respectively.

Dent Update 2011 2011 Sep;38(7):452-4, 456-8.

Aesthetic smile evaluation--a non-invasive solution.

Kovacs BO, Mehta SB, **Banerji S**, Millar BJ.

Source

King's College London, UK.

Abstract

Enhancement of the aesthetic zone is a common reason for patients to seek dental care. This article describes a protocol for the examination, assessment and treatment planning for a patient seeking a solution to an aesthetic concern. The technique of undertaking an intra-oral'mock-up' using resin composite as a diagnostic approach can be particularly helpful when planning for future prosthodontic rehabilitation. The latter can allow the operator and patient to visualize crudely what is aesthetically and functionally possible, given the constraints imposed

by that patient. The patient has ultimately managed in a minimally invasive manner. CLINICAL RELEVANCE: It can be very tempting for a dental operator to impose his/her concepts of the'artistic ideal' when planning for care in the smile zone. Such ideals are largely based on established universal aesthetic principles of tooth colour, size, shape, form, position, symmetry and proportion. However, beauty is a very subjective matter. It is essential for the operator to listen attentively to his/her patient's concerns. Meticulous patient examination and assessment are absolutely critical factors in attempting to attain a successful outcome. The use of reversible, chairside intra-oral mock-up techniques can not only help with the transference of essential information to the dental technician when planning for restorative intervention in the smile zone, but can also allow the patient to gain an insight and indeed contribute his/her views to the possible restorative endpoint, respectively.

Dent Update 2011 2011 Sep;38(7):437-8.

Blended learning: an ideal combination for dental practice.

Millar BJ, **Banerji S,** Mehta SB.

Year 2010:

Clin Oral Implants Res.2010 Dec;21(12):1360-9

Clinical performance of provisional screw-retained metal-free acrylic restorations in an immediate loading implant protocol: a 242 consecutive patients' report.

Suarez-Feito JM, Sicilia A, Angulo J, **Banerji S**, Cuesta I, Millar B.

Source

Section of Periodontology, Faculty of Dentistry and Medicine, University of Oviedo, Oviedo, Spain.

Abstract

OBJECTIVE:

To evaluate the clinical performance of provisional screw-retained metal-free acrylic restorations in an immediate loading implant protocol.

MATERIAL AND METHODS:

Two hundred and forty-two consecutive patients were selected retrospectively, who received 1011 implants and 311 immediate provisional screw-retained implant restorations (2-4 h after implant surgery). The patients were monitored for a period of

2-3 months, until they were referred for a final restoration. The primary variables recorded include the survival time and the appearance of fractures in the provisional restoration, and the independent variables included age, sex, dental arch, type of restoration, type of attachment and components used, as well as cantilevers and opposing dentition. A survival analysis (Kaplan-Meier) and a Cox regression analysis were performed.

RESULTS:

Twenty-three restorations in 20 patients (8.26%, 95% CI 4.8-11.7) showed at least one fracture (7.39%). More than half of the new fractures (52%, 12 cases) occurred in the first 4 weeks. The cumulative survival probability observed was greater in mandible (P=0.05) and non-cantilever restorations (P=0.001), and in those opposed by full restorations or natural teeth (P=0.001). With an opposing implant-supported prosthesis, the risk of fracture was multiplied by 4.7, and the use of cantilevers as well as the location of the restoration in the maxilla multiply the risk by 3.4-3.5.

CONCLUSIONS:

Immediate provisional screw-retained metal-free implant-supported restorations can be considered a reliable restoration (92.6% remain intact) for the healing period of 3 months.

Br Dent J. 2010 Jun;208(11):503-14.

Cracked tooth syndrome. Part 2: restorative options for the management of cracked tooth syndrome.

Banerji S, Mehta SB, Millar BJ.

Source

Department of Primary Dental Care, King's College London Dental Institute, Bessemer Road, London, SE5 9RW.

Abstract

The second of this two part series on 'cracked tooth syndrome' will focus on the available methods for the immediate, intermediate and definitive management of patients affected by this condition. Included in this article is a comprehensive account of the relative merits/drawbacks of various restorative materials and their respective techniques of application for the treatment of symptomatic, incompletely fractured posterior teeth.

Br Dent J. 2010 May 22;208(10):459-63.

Cracked tooth syndrome. Part 1: aetiology and diagnosis.

Banerji S, Mehta SB, Millar BJ.

Source

King's College London Dental Institute, Bessemer Road, London, SE5 9RW.

Abstract

Symptomatic, incompletely fractured posterior teeth can be a great source of anxiety for both the dental patient and dental operator. For the latter, challenges associated with deriving an accurate diagnosis together with the efficient and time effective management of cases of cracked tooth syndrome are largely accountable for the aforementioned problem. The aim of this series of two articles is to provide the reader with an in-depth insight into this condition, through the undertaking of a comprehensive literature review of contemporarily available data. The first article will provide details relating to the background of cracked tooth syndrome including the epidemiology, patho-physiology, aetiology and diagnosis of the syndrome, together with a consideration of factors which may influence the prognostic outcome of teeth affected by incomplete, symptomatic fractures. The second article will focus on the immediate and intermediate management of cracked teeth, and also provide a detailed account of the application of both direct and indirect restorations and restorative techniques used respectively in the management of teeth affected by this complex syndrome.

Year 2005:

Br Dent J. 2005 Dec 24;199(12):771-5.

Clinical performance of Rochette bridges used as immediate provisional restorations for single unit implants in general practice.

Banerji S, Sethi A, Dunne SM, Millar BJ.

Source

Department of Primary Dental Care, GKT Dental Institute, King's College London, Denmark Hill Campus, Caldecot Road, London, SE5 9RW.

Abstract

A retrospective clinical audit of the role and survival of 69 Rochette bridges used as immediate provisional restorations for single tooth, implant-retained crowns was

carried out over the period between February 1991 and May 2001. In each case the extracted tooth was immediately temporised using a Rochette bridge with a single wing and pontic and cemented to the abutment tooth without any tooth preparation (Phase I). This bridge was removed at the time of implant placement and recemented (Phase II). At the implant exposure stage the bridge was removed and discarded. In Phase I, 15.9% of the bridges required recementation and 27.5% of the bridges required recementations in phase 2; 7.2% of the bridges required recementations in both phases. An 80% probability of survival was noted after an interval of 200 days for phase I and a 78% probability of survival over the same time interval was observed for Phase II. A significant debond rate was observed when the retainer was a canine in comparison to the other bridges in Phase I. In Phase I the spring cantilever debond rate was significantly higher than that observed on the other bridges. More debondings were observed in males (25.8%) compared with females (7.9%) in Phase I. More debondings were noted in the maxilla than in the mandible in Phase II. The performance characteristics of the metal acrylic Rochette bridge observed in this report supports the conclusion that this type of restoration is an effective means of immediate temporisation for patients undergoing single tooth implant retained restorations.

Year 1996:

Prim Dent Care. 1996 Mar;3(1):43-4.

Clinical study day on oral cancer.

Banerji S.

AOG Journal Winter/Spring 1996 Volume 12. Issue 1.

Ionising radiation – Protection in practice

Banerji S.

Banerji S. Prosthodontics for Osseointegrated Dental Implants. Module 7, Unit 6. MClinDent (Fixed and Removable Prosthodontics), King's College London. Learning Resources.

Mehta SB, **Banerji S**. 'Posterior composite restorations' Module 3, Unit 3, MSc Aesthetic Dentistry, King's College London, 2009. Learning resources.

Mehta SB, **Banerji S**. 'Tooth Wear' Module 5, Unit 1. MSc Aesthetic Dentistry, King's College London, 2010. Learning resources

6.3 *Books*#
#

Patient examination and assessment. Chapter 3. "**Essentials in esthetic Dentistry"**, Elsevier – Published by Elsevier December 2014

Author & Editor-in-Chief **"Practical Procedures in Aesthetic Dentistry"** Wiley-Blackwell Publication – February 2017.

Manual of Clinical Procedures in Dentistry – Wilson & Dunne – Chapter 22 "Procedures in Aesthetic Dentistry" – Published by Wiley Blackwell 2018..

Books in press:

Practical Procedures in the Management of Tooth Wear in General Dental Practice – Authors Banerji S, Mehta SB, Loomans B & Opdam N. Due November 2018 to be published by Wiley Blackwell.

Practical Procedures in Implant Dentistry – Authors Ho C, Hogg K & Banerji S. Due December 2017 to be published by Wiley Blackwell