CRC15: Full Mouth Rehabilitation Utilising the Shortened Dental Arch Concept

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Introduction: The shortened dental arch (SDA) concept was originally introduced by Arnd Kayser in 1981. It is defined as having an intact anterior region but a reduction in the occluding pairs of posterior teeth. This approach appears to be cost-effective and has shown to improve the quality of life of patients.

Case Description: A 66 years-old Chinese male presented with generalised severe attrition of his dentition due to a lack of posterior support and parafunctional habits. Negligence of his oral health occurred when he was diagnosed with colon cancer in year 2013. After surviving cancer, he decided to seek dental treatment to restore his dentition. His full mouth rehabilitation provided cuspal coverage up to the second premolars with multiple single porcelain-fused-to-metal (PFM) crowns at a raised vertical dimension. Two implants were placed to restore the missing maxillary left premolars.
Discussion: The SDA concept is not commonly practiced given the concerns related to occlusal stability and temporomandibular disorders. However, the patient was not keen to proceed with sinus augmentation required for the planned implant restorations at the molar region. The reduced number of occlusal units is a potential risk factor in the rehabilitation of shortened dental arches. The provisional phase was critical to determine the feasibility and long-term prognosis of this treatment plan.

Conclusion: Overall, the patient was satisfied with the final treatment outcome, stating improved masticatory function and quality of life despite being restored to a shortened dental arch. The SDA concept may be utilised as an alternative treatment option for full mouth rehabilitation.

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