Supportive peri-implant therapy

Dr Charlotte Spedding¹ says that patients should be educated about the importance of maintenance as an investment in the success of their implant.

Baseline readings

On completion of an implant restoration the restoring dentist will recommend a suitable maintenance plan for the dental hygienist and patient. A post-restoration, reproducible image such as a long-cone periapical radiograph is recorded, together with probing depths. This should demonstrate a good fit of the restoration, absence of excess cement and the morphology of the restoration where it sits against the implant head beneath. By recording post-restoration bone levels, future serial radiographs can be used to demonstrate changes.

Recalls

A dental hygienist will usually provide the supportive periodontal care by seeing the patient at agreed three or six monthly intervals, depending on a risk factor assessment for peri-implant disease. The restoring dentist will also monitor the patient with an annual review, moving to longer intervals once they are happy with the apparent stability. The importance of this should have been communicated to the patient both at the treatment planning stage and post-operatively.

Professional oral-hygiene instruction

The patient's role in daily plaque control needs to be reinforced. By considering the reasons for the original tooth's removal you are in a good position to decide what extra care is now

required: inadequate access for oral hygiene due to the tooth, or jaw, morphology; strong oral musculature; soft tissue type: tissue thickness; keratinised or alveolar mucosae. These can affect the ease and comfort of cleaning.

The dental hygienist should record their own, therefore reproducible, baseline probing measurements, in order to detect changes in future. For optimal plaque control around the implant restoration, the design needs to be cleansable. If this is not the case, the referring dentist needs to be alerted, so that they can modify the restoration. Over-extended pink porcelain may look great aesthetically but could cause plaque stagnation, resulting in inflammation and recession, which will soon adversely affect the appearance and jeopardise the longevity of the implant.

The dental hygienist has many methods of plaque control in their armamentarium and will usually find something to gain access to the gingival margin. Appropriately sized, snug-fitting interdental brushes are ideal, especially the extra soft versions which are often plastic coated. There is a 'Universal' brush, by one manufacturer, that is great for accessing the palatal, lingual and furthest proximal aspects of restorations on both implants and teeth. Cross-over flossing, with non-shredding floss, can be very effective beneath an implant crown, where the narrower implant head is positioned - although a good level of dexterity is required!

Individual risk assessment

Local and systemic risk factors are ideally addressed pre-operatively. However, these risk factors can change with time. Habits such as smoking may resume, stress levels can fluctuate, the health of the patient may deteriorate, eg diabetes. Medications may be introduced

that could cause xerostomia or drug-induced gingival hyperplasia and plaque stagnation. Physical and mental health may fail. The dental hygienist will be used to monitoring and assessing this routinely and is ideally placed to detect early changes in the health of the patient and their peri-implant tissues. Mechanical plaque control may be affected due to the patient's loss of dexterity (or lost interest!). Motivation may dwindle, even though there are techniques for addressing this. If a potential problem is found during the baseline examination, it can be addressed from the outset.

Biological complications

Peri-implant mucositis is relatively easy to address at an early stage, to stop disease progression. It was originally thought that peri-implant tissues should not be probed in case the epithelial attachment was breached. This has since been disproven, and gentle probing is recommended. Absence of bleeding indicates tissue health but the presence of bleeding requires improved plaque control and instrumentation by the clinician in order to remove local factors: plaque, calculus, cement. If this does not improve and the probing depths increase, an early review with the referring dentist is required; a new deep pocket might indicate bone loss and peri-implantitis or occasionally component fracture. This and any failure of the patient to attend appointments should be communicated to the referring dentist.

Peri-implantitis can be difficult to treat effectively and is best prevented.

<https://doi.org/10.1038/s41407-021-0616-x>

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