Editorial A Clinical Decision: Immediate or Delayed Placement of Implants

Placement of a dental implant into an extraction socket offers more advantages to the patient compared to healing without a regenerative effort. There are fewer surgical procedures, expense and discomfort are reduced, and the treatment is accomplished more rapidly with fewer visits. With that said, when should implants be placed to provide an optimal result for the patient?

The project begins with a diagnosis, which includes identification of periapical pathology, systemic risk factors, and a history of periodontitis. The history of periodontitis is of minimal importance if all periodontal disease is treated before implant placement. Three-dimensional radiographs provide significant insight into the encasement of the clinical root in the remaining bone. This information must be considered along with the occlusal scheme of the patient to determine the position of the implant and how it will affect the prosthesis.

The recognition of osseointegration in 1989 has been expanded by many investigations. Placement of a provisional crown rather than another alternative is of significant benefit in the esthetic zone. There are decisions to consider in discussing immediate implants beyond the esthetic zone. For a maxillary first premolar with a buccal and palatal root, delivery of the implant to the palatal root would become an esthetic issue as the tooth may appear to be missing unless the ceramic is cantilevered toward the buccal side. There is usually a cavity on the buccal surface in this area that precludes placing the implant in the position of the mesial root. Therefore, for patients who are seeking an ideal esthetic result, it might be appropriate to remove the tooth, regenerate bone in the postextraction defect, and place the implant in an optimal esthetic position.

In the mandibular posterior quadrant, the second premolar frequently offers a challenge due to the location of the mental foramen. It is rarely necessary to challenge anatomical obstacles. It is unlikely that replacement of a mandibular molar is a patient-based problem requiring an immediate implant while challenging the inferior alveolar nerve. Similar considerations may be applied to the maxillary molars, although the high success rate of sinus elevation procedures makes this less precarious.

The mandibular incisors are frequently crowded with very narrow septae. This makes it difficult to achieve optimal mesiodistal positioning for prosthetic reconstruction. Because this is an esthetic zone, same-day placement of a provisional is desirable.

Irreversible changes are initiated shortly after these extractions. Resorption in a thin wall phenotype can greatly reduce the height of the buccal plate. These events will occur even if an implant is placed. The implant should be placed in a palatal position to achieve an optimal prosthetic result. This will leave a gap between the implant surface and the intact facial plate, which is usually filled with bone graft materials.

Investigations report that an immediate implant may not be indicated when the buccal bone is < 1 mm in width. Only 4.6% of patients have a thick wall phenotype (> 1 mm) in the central incisor site, compared with 13% in the anterior sextant.

The last important key is management of the soft tissue with a connective tissue graft. Soft tissue compatibility between the implant and the surrounding gingiva of the adjacent natural teeth is the objective.

All clinical decisions are multifactorial. Consideration of the esthetic area is a priority for some patients and of little importance to others. A tooth with 1 or 2 mm of recession, for example, may be of no concern to one patient and a calamity to another. Each case requires individual attention, as there is almost always a lack of uniformity of bone and soft tissue quality and quantity. No critical review of the literature can be a substitute for past experience with the outcome of an individual problem. The ultimate answer to this dilemma is obvious: What would you do if the patient was you or a member of your family?

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