general dentists are considered the gatekeepers of the dental profession, with the primary responsibility to evaluate, diagnose, treat or refer a patient while keeping the patient’s best interests in mind. General dentists establish relationships with dental specialists with post graduated training in order to render the appropriate treatment for their patients. To-day this relationship has never been stronger than before. Most general dentists have one or two highly trained dental specialists in their communities that they feel comfortable referring patients to and this has really impacted the level of dental care and opened doors for endless possibilities for patients. Whether it’s a simple referral, or a multi interdisciplinary approach, a team of general dentist and specialist dentist can treat a single patient in a comprehensive manner to ensure the best clinical outcomes possible. Although at a slower pace, this referral culture is also growing across country lines. Many dentists from the Gulf region refer their patients to dental specialist in Dubai and this has had a positive impact on dentistry and medical tourism in Dubai.

As an Implant clinic concentrating mainly on dental implants, SameDay Dental Implants Clinic in Dubai Healthcare City has treated thousands of patients referred by well-known dentists in the region. By having a team of well-trained specialist under one roof, dentists can refer their patients to SameDay

Fig. 1: Unrestorable tooth 46 with peri-endo lesion, furcation involvement and periapical granuloma

Fig. 2a: Periapical granuloma, extending to the vicinity of the inferior alveolar nerve

Fig. 2b: Intact buccal and lingual bony walls

Fig. 3a: The Max Immediate molar replacement - Implant from Southern Implants.

Fig. 3b: The projected Implant on the 3D dental implant planning system

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Dental Implants knowing that the treatment will be rendered with maximum care and efficiency. At SameDay Dental Implants Clinic the team is comprised of dental specialist such as maxillofacial surgeons, prosthetists and master dental technicians. Additionally well-trained surgical assistants, an in-house 3-D digital scan facility and an internal dental laboratory make SameDay Dental Implants Clinic a one-stop shop for dental implants. Furthermore, what starts as an introductory referral report from the general dentist gets converted into a meeting where patients’ x-rays and preliminary diagnostic information is shared and discussed. SameDay Dental Implants Clinic specializes in immediate placing and immediately loading the majority of the dental implants and many referring dentists praise this highly since their patients’ cases are completed swiftly without delay. The team at SameDay Dental Implants are also involved in many teaching courses in the UAE region that concentrate in training other dentists in placing and restoring dental implants.

Below is a description of such a relationship demonstrated by a case referred to SameDay Dental Implants Clinic by a general dentist that refers patients to SameDay Dental Implants on a weekly basis. It involves a previously restored crown on tooth # 46 that presented with pain on percussion and minor lingual swelling. Upon radiographic examination, periapical granulomas can be seen at the apex of both roots, extending into the furcation with dental decay spreading into the mesial and distal root chambers (Figure 1). Upon further evaluation of the 3D scan the periapical granulomas abscess is seen extending into the vicinity of the inferior alveolar nerve and hence attributing to the symptoms of pain. (Figure 2a, b). Nonetheless the intact labial and lingual walls render this case an ideal situation for immediate extraction and immediate loading with a MAX dental implant from Southern Implants.
This implant is designed for immediate replacement of molar teeth as it is engineered to provide high insertion torques to ensure maximum primary stability at the time of the implant placement. Pre-planning of the future position of the implant and the available bone is assessed in the 3-D implant planning software prior to implant placement (Figure 3a, b). In order to maximize the osteotomy preparation and ensure a screw-retained restoration, we have mastered the "drill through the tooth technique". This initiated once the crown is sectioned horizontally and detached at the cervical level (coronectomy) to increase the visibility while drilling through the tooth. (Figure 4a, b). Consecutive drills are used to widen the hole within the tooth at a depth slightly short of the apex. By drilling through the tooth, the drills are stabilized and this prevents a traumatic osteotomy preparation (Figure 5a, b). The separated roots are simply elevated into the space created and removed without causing any damage to the extraction site (Figure 6a, b, c). The peri-apical granuloma visible on the CBCT is now curetted, the extraction site is degranulated and irrigated with saline (Figure 7a, b). Bony Alveolar housing of the extracted site shows intact buccal, lingual, mesial and distal walls (Figure 8). A Max 7-11 Southern implant in the dimensions of 7mm in diameter and 11mm in length is the appropriate size for this extraction socket. Should a larger diameter size implant be needed, then a larger range of sizes starting from 7mm to 10 mm in diameter designed for immediate placement within molar extraction sites can be selected (Figure 9a, b). The MAX implant is inserted at a minimum of 65 Ncm of torque or higher and the platform is placed 1-2mm deeper & 1-2 mm away from the buccal crest. (Figure 10a, b). In order to fabricate the final restoration within the same day a pre-machined zirconia abutment is selected in order to fabricate a screw-retained restoration (Figure 11a, b). For this particular MAX 7-11 implant a zirconia abutment CER-ZR-58 is selected. The 5 represents the 5mm platform diameter and the 8 represent the divergence of the cylinder to an 8mm dimensions. Since the MAX 7mm diameter converges / platform switches to a 5mm platform, then a 58 zirconia is the appropriate abutment for this case (Figure 12a, b). Once the implant is placed and an abutment selected, the next step is to take an impression to fabricate the final restoration. A fast setting, medium body, addition cured polyvinylsiloxane is used and an open tray impression is made (Figure 13a, b, c, d). A healing abutment is placed and in four hours our in-house dental lab converts the zirconia 58 cylinder to an all-ceramic screw retained restoration (Figure 14). The zirconia 58 cylinder is cut down and porcelain build up is completed prior to final glazing (Figure 15a, b, c, d).
Fig. 13a: Impression coping for open tray “pick up” impression technique

Fig. 13b: Sealing of the impression coping

Fig. 13c: Medium body addition cured polysulphide impression material

Fig. 13d: Open tray impression with the impression coping

Fig. 14: Healing abutment in place

Fig. 15: Zirconia CER-ZR-58 post manual grinding in the laboratory prior to porcelain buildup. Note the appropriate porcelain support for all ceramic screw retained crown.

Fig. 16a: Screw retained zirconia all ceramic crown with the screw access hole prior to screw access hole closure.

Fig. 17a: CBCT image at the time of insertion showing proper implant placement within the bony housing

Fig. 17b: Periapical x-ray at insertion

Fig. 17c: Periapical x-ray at three-month recall appointment

Fig. 18a: Periapical x-ray at three-month recall appointment

Fig. 18b: Bitewing x-ray at three-month recall appointment

Fig. 18c: Lateral intraoral photo at three-month post op appointment

Not only is it a pleasure to render this swift treatment to this patient, but also general dentists find this treatment very beneficial to their patients, since the treatment is finalized in one appointment. This one appointment SameDay Dental Implant concept saves time and money both for dentist and patient. The dentist saves expensive chair side time whilst the patient does not have to stay away from work or social responsibilities.

Once again, by working as a team and establishing a referral base, we can turn around cases faster and better thereby strengthening the trust in our profession as a whole. This is a gratifying experience for all members of the team and in particular for the patient who doesn’t have to be seen by the dentist multiple times. Truly this is an implant solution for a patient with a busy life.

At the three-month checkup appointment, periapical and bitewing x-rays show stabilized bone levels and clinical solidity of the implant & SameDay Zirconia crown (Figure 18a, b). Although in this case no adjustments were needed, we can easily make any changes should addition of porcelain be needed due to soft tissue changes. This can be done quite easily since this crown is a screw-retained restoration and is retrievable in a few minutes.

About the Authors

Dr. Costa Nicolopoulos, BDS cum laude, FFD (SA) MFOS
Oral & Maxillofacial Surgeon
SameDay Dental Implants Clinic
BRANEMARK OSSEOINTEGRATION CENTER – DUBAI
costa@samedayme.com

Dr. Safa Tahmasebi, D.D.S, M.S
Cert. Prosthodontist (USA)
SameDay Dental Implants Clinic
BRANEMARK OSSEOINTEGRATION CENTER – DUBAI
safa@samedayme.com