EECI Experience-based and evidence-oriented Corticobasal® Implantology

Vol. 20 No. 2 March 2026 English Edition

The Technology of the Strategic Implant®: A Case of Immediate Loading in a Compromised Anterior Maxilla

Dr. Basavaraj Huddar,
Dr. Megha Hirmukhe (Huddar)

ISSN 1864-1199 / e-ISSN 1864-1237

Published by IF® Publishing, Germany,
continued since 2024 as:
- **CMF Implant Directions® (CMF)**
- **Journal of unwanted Results (JUR)**
- **Experience-based and evidence-oriented Corticobasal® Implantology (EECI)**

IF® The Foundation of Knowledge

Editorial Board

Annual Subscription
Euro 4.600

EECI
ISSN 1864-1199
e-ISSN 1864-1237

Disclaimer

Hazards
Great care has been taken to maintain the accuracy of the information contained in this publication. However, the publisher and / or the distributer and / or the editors and / or the authors cannot be held responsible for errors or any consequences arising from the use of the information contained in this publication. The statements or opinions contained in editorials and articles in this publication are solely those of the authors thereof and not of the publisher, and / or the distributer, and / or the IF®.
The products, procedures and therapies described in this work are hazardous and are therefore only to be applied by certified and trained medical professionals in environment specially designed for such procedures. No suggested test or procedure should be carried out unless, in the user's professional judgment, its risk is justified. Whoever applies products, procedures and therapies shown or described in this publication will do this at their own risk. Because of rapid advances in the medical science, the IF® recommends that independent verification of diagnosis, therapies, drugs, dosages and operation methods should be made before any action is taken.
Although all advertising material which may be inserted into the work is expected to conform to ethical (medical) standards, inclusion in this publication does not constitute a guarantee or endorsement by the publisher regarding quality or value of such product or of the claims made of it by its manufacturer.

Legal restrictions

The Foundation of Knowledge

The Technology of the Strategic Implant®: A Case of Immediate Loading in a Compromised Anterior Maxilla

Authors

Dr. Basavaraj Huddar [1,2]
Dr. Megha Hirmukhe (Huddar) [1]

Raj Dental Surgery & Implant Clinic
(since 2001)
Office No 8, 1st Floor Chandan Shopping Center, opp. Shivaji Maharaj statue
Chandan Nagar, Pune-411014
Maharashtra, India
Phone: +91 9860 880 461 (also WhatsApp)
E-Mail: drhuddar@gmail.com

[1] Dental surgeon & implantologist

[2] Diploma in Immediate Loading Implantology & IF® Teacher for International Implant Foundation IF®, Munich, Germany

How to Cite This Article

Huddar B, Hirmukhe M. The Technology of the Strategic Implant®: A Case of Immediate Loading in a Compromised Anterior Maxilla, Experience-based and evidence-oriented Corticobasal® Implantology (EECI), Vol. 20, No. 2, International Implant Foundation Publishing, 2026

Abstract

Historically, tooth-supported bridges have constituted a primary restorative modality in dentistry for the replacement of missing teeth. Nevertheless, the foundational support for these restorations has undergone substantial evolution. Initially reliant on natural tooth abutments, the advent of dental implants heralded a transformative shift in restorative dentistry. Dental implants, which are artificial tooth roots typically fabricated from titanium, are surgically inserted into the jawbone to establish a robust and enduring foundation for prosthetic dentition. This innovation presented a more predictable and durable alternative to conventional bridgework, particularly in instances of edentulism or when adjacent teeth are compromised. This case report specifically addresses the immediate loading of strategically positioned implants within the anterior esthetic zone of an atrophic maxilla, a complex clinical scenario necessitating meticulous planning and precise execution to achieve superior functional and esthetic outcomes.

Keywords: Immediate loading, dental implants, atrophic maxilla, anterior esthetic zone, strategic implants, tooth-supported bridges, dental prosthetics, oral rehabilitation

Background

Patients with pre-existing dental bridges frequently exhibit disuse atrophy, leading to bone resorption beneath the pontic segments. Upon the failure of such bridges, these patients are often presented with limited treatment options, as conventional crestal implants frequently prove ineffective in atrophic bone without extensive bone augmentation. While effective, bone augmentation entails significant investments of time, cost, and additional surgical procedures, which can deter patients seeking a more immediate and less invasive solution.

Case Presentation

A 30-year-old male patient presented at our facility with a primary complaint of pain, sustained for six months, originating from a six-year-old fixed bridge. Clinical examination revealed a bridge extending from teeth 14 to 21, with teeth 14 and 21 serving as abutments as shown in Figs. 1 and 2. Both abutment teeth, as well as tooth 22, exhibited tenderness upon

percussion. The patient reported no other systemic illnesses or pertinent medical conditions. Radiographic evaluation, encompassing an orthopantomogram (OPG) and Cone Beam Computed Tomography (CBCT), was recommended. The OPG disclosed a substantial periapical lesion associated with teeth 21 and 22, rendering non-surgical endodontic therapy questionable as shown in Fig. 3. CBCT sections further demonstrated deficient height and width of the bone in regions 13, 12, and 11 as shown in Figs. 4, 5, 6, 7 and 8. Given these findings, the conventional approach of immediate loading appeared unfeasible, and the mere placement of conventional implants seemed challenging due to the significant bone deficiency. However, the technology of the Strategic Implant® offered a promising alternative. This approach provided renewed prospects of

1. being able to place the implants in bone with deficient height and width,
2. thin and polished mucosal penetration and apically engaging threads making the procedure minimal invasive and less traumatic to the patient, and
3. the smooth polished surface opening up new possibilities of being able to use the implants in all periapical and periodontal infection cases without limitations.

The patient's blood reports were within normal limits, confirming the absence of any other detected medical condition. A comprehensive informed consent form was obtained, covering both the procedure and the potential for publishing the case report. From the patient's perspective, this was a crucial step, ensuring a thorough understanding of the proposed treatment and its implications. The detailed explanation of the procedure, including potential risks and benefits, enabled the patient to make an informed decision regarding their care. On the day of surgery, the patient received 6cc (2cc x 3 syringes) of local anesthesia (Lignocaine with Adrenaline 1:80,000). The existing bridge was sectioned between 13 and 14, thereby preserving tooth 14. Teeth 21 and 22 were subsequently extracted, and their extraction sockets were meticulously debrided both mechanically and chemically.

Four 3.5 mm diameter, 20 mm length BECES® Simpladent®[i] implants were strategically positioned in the 13, 11, 21, and 22 regions and anchored in the second cortical. Care was exercised to engage the strategic locations, specifically the canine region, by engaging the nasomaxillary buttress bilaterally, utilizing a flapless approach. Small head BECES® implants were deliberately selected to ensure adequate bulk for the definitive crown, thereby optimizing esthetics. Osteotomy commenced with a pathfinder drill to ascertain the location of the second cortical. A 2 mm twist drill of appropriate length was then employed to create a precisely controlled perforation in the nasal floor, engaging approximately 1-2 threads of the implants. The controlled perforation of the nasal floor was uneventful and smooth, with no epistaxis observed during or post-surgery. The stability of the implants was tested and sound checked. The implant abutments were bent in the appropriate direction to achieve parallelism. A satisfactory level of torque was achieved, however, in this instance, given the use of thin and long isoelastic implants, the ISQ values would yield a spurious reading. The two-stage conventional implants that are wide and rigid with rough surface depend solely on the gradual integration into the cancellous bone for primary stability. Without the desired primary stability of designated ISQ, immediate loading would be suicidal in most applications for two-stage implants. Whereas in my case of BECES® implants, the apically engaging threads achieve good osseofixation in the cortical bone with high primary stability which allows bending of the abutments to the desired position, without any change in stability. The present ISQ measuring device is incompetent to measure the stability achieved in cortical bone. Likewise, the tactile sensation will give the surgeon valuable information about the quality of the bone into which the implant had been engaged. Impression caps (belonging to the implant system) were placed on the abutments, and a silicone putty impression was made, deliberately avoiding any light body impression material. The rationale for avoiding light body material was to prevent its ingress into the fresh extraction sockets and subsequent entrapment; the details captured by

i Manufacturer: Simpladent GmbH, Dorfplatz 11, 8737 Gommiswald / SG, Switzerland

putty alone were deemed sufficient. Following an opposing alginate impression and shade selection, the patient was prescribed routine antibiotics and analgesics and discharged for the day. Overnight, the dental laboratory fabricated a zirconia-fused-to-porcelain bridge (Figs. 10 and 11) that was prepared for placement the subsequent morning. At the 24-hour follow-up, healing was excellent, with no abnormal bleeding, swelling, or pain reported by the patient as shown in Fig. 9. The absence of flap elevation obviated the necessity for sutures. The post-operative OPG (Fig. 13) and CBCT (Figs. 14, 15, 16 and 17) showed satisfactory engagement of implants in the second cortical. The abutments were trimmed according to the provided jig utilizing a conventional air-rotor and a metal-cutting bur (Fig. 9). The bridge (Figs. 10 and 11) was then tried in to verify the proper insertion path and to ensure passive seating. While the bridge exhibits active engagement during insertion, it achieves complete passivity once fully seated, a characteristic attributed to the inherent elasticity of both the implants and the surrounding bone. In this case, the implants are long and thin with a shaft of 2 mm and a length of 20 mm, and being single-piece, they exhibit a fair degree of elasticity. Upon confirmation of the patient's satisfaction with the shade, shape, size, speech, and overall visibility, assessed through smile and lip line evaluations, the bridge was cemented into place using Fuji Plus cement, hand mix version (Fig. 12). A strategic occlusal scheme had been established by the implant manufacturer, reducing the static as well as dynamic contacts with the prosthesis, and the patient was dismissed. The patient has been recalled for regular follow-ups in accordance with the strategic protocol (Figs. 18 and 19) and the occlusion has been meticulously maintained. This case demonstrates a successful two-year follow-up.

***Fig. 1**: Pre-operative intraoral picture, frontal view with old bridge from teeth 14, 13, 12, 11, and 21.*

***Fig. 2**: Pre-operative intraoral picture, occlusal view showing the bridge from tooth 14 to 21.*

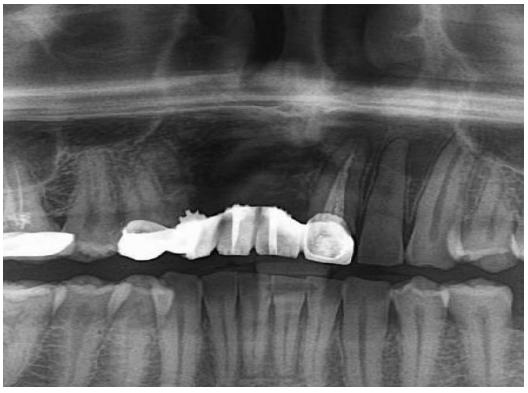

***Fig. 3**: Pre-operative orthopantomogram showing*

1. *the old bridge from tooth number 14 to 21,*
2. *deficient alveolar bone below the pontics,*
3. *large periapical lesions in relation to teeth 21 and 22,*
4. *calcified root canal of the tooth 22.*

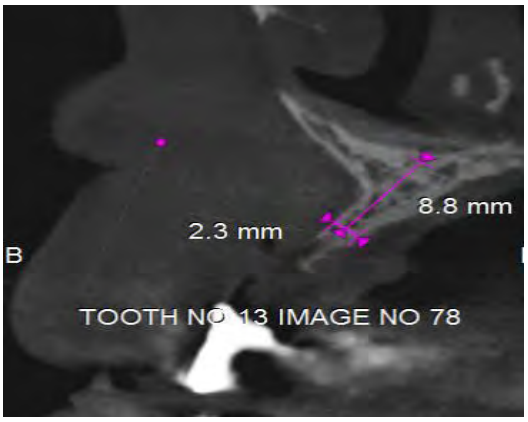

***Fig. 4**: Showing CBCT section of edentulous region below the pontic of tooth 13 region, please note the deficient horizontal bone supply, knife-edge ridge and mucosa.*

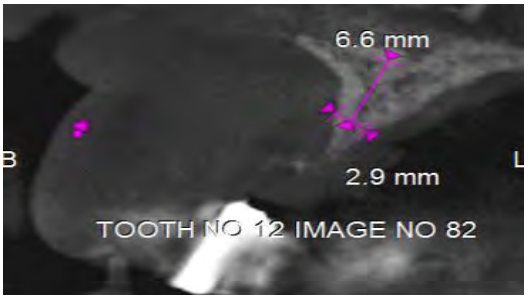

***Fig. 5**: Showing CBCT section of edentulous area below the pontic of tooth 12 region, please note the knife-edge ridge and the mucosa. Here, the question is where to insert the implant?*

***Fig. 6**: Showing CBCT section of edentulous area below the pontic of tooth 11 region with knife-edge ridge covered by mucosa, here keeping the labial plate intact supporting the mucosa. Implant should be placed palatal to the ridge following the IF® Method 7b[13] instead of 7a. This will give good stability to the buccal mucosa for good long-term success.*

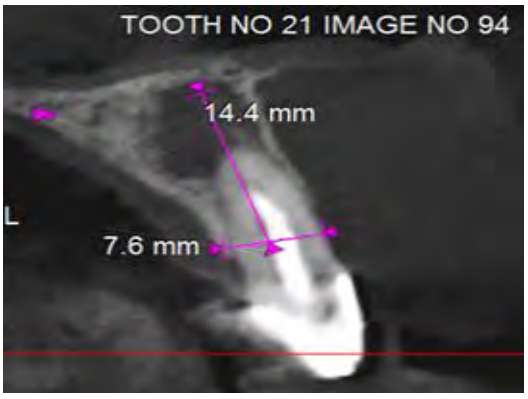

***Fig. 7**: Showing CBCT section of tooth 21, endodontically treated tooth, please note the periapical lesion.*

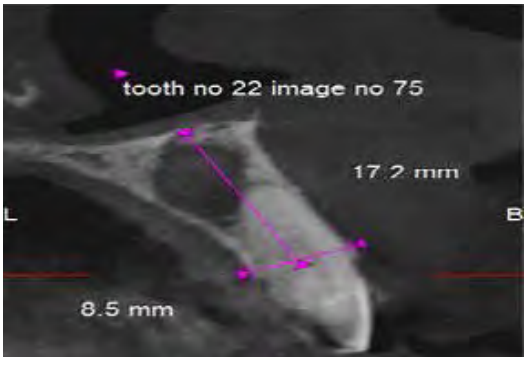

***Fig. 8**: Showing CBCT section of tooth 22, please note the periapical lesion.*

***Fig. 9**: Intraoral picture showing four implants, please note the abutments grinded to match the path of insertion. Also note the benefits of minimal invasive flap less approach resulting in no swelling, no need of sutures with excellent healing.*

***Fig. 10**: Porcelain fused to zirconium prosthesis showing the labial surface.*

***Fig. 11**: Showing the under-surface of the prosthesis (tissue surface) with no concavities nor under-cuts and please note the benefits of using the small head abutments allowing more prosthetic material placement for better long-lasting esthetic results.*

***Fig. 12**: Immediate post-operative image after cementation of the prosthesis, please note the tissue adaptation and good esthetics.*

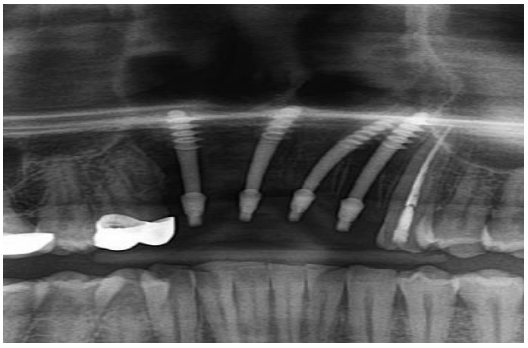

***Fig. 13**: Post-operative OPG showing the implants engaging the second cortical and anterior nasal spine.*

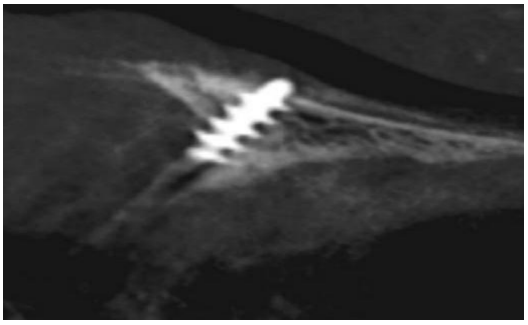

***Fig. 14**: Showing immediate post-operative CBCT section of tooth 13 region. Here I used IF® Method 7a[13] to engage the nasal floor, but this carries the risk of exposure of the vertical implant part on the vestibular side of the crest, so here instead of IF® Method 7a, I should have used IF® Method 7b, which would have been a safer solution. The rule is: If in doubt, use IF® Method 7b instead of IF® Method 7a.*

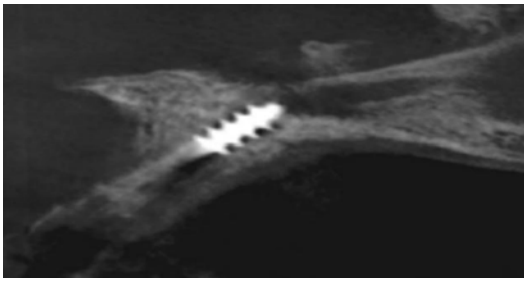

***Fig. 15**: Showing the CBCT section of implant engaged in the anterior nasal spine. Anterior nasal spine gives very high torque while insertion of the implant as we always find highly mineralized cortical bone here. While treating the anterior atrophic maxilla, I always make it a point to engage the anterior nasal spine that gives me great stability and confidence in treating the atrophic cases.*

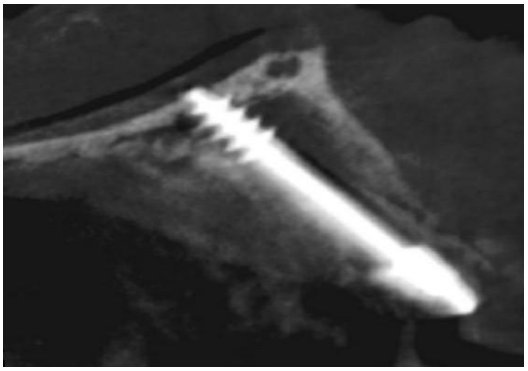

***Fig. 16**: Showing CBCT section of tooth 21 region, please note the implant engaging the nasal floor following IF® Method 7a[13].*

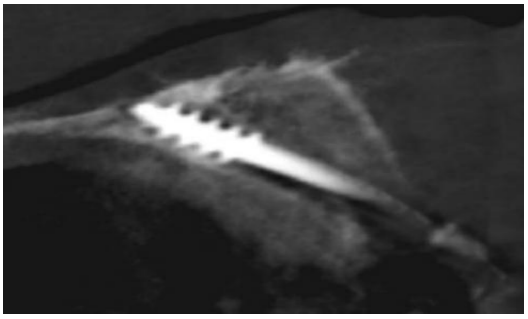

***Fig. 17**: Showing CBCT section of tooth 22 region, please note the implant engaging the nasal floor following IF® Method 7a[13].*

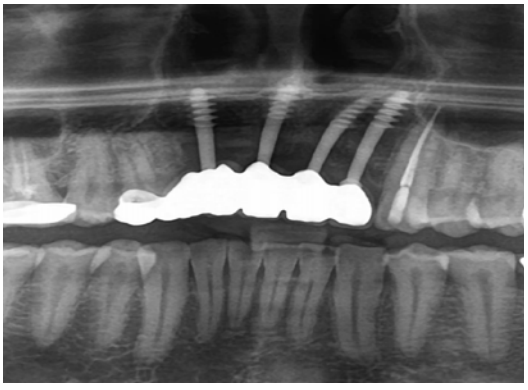

***Fig. 18**: Follow-up OPG showing good healing with stable bone situation with zero complications.*

***Fig. 19**: Showing follow-up intraoral picture with stable soft tissue and well-maintained esthetics with 100% patient's satisfaction.*

Discussion

The successful rehabilitation of a severely atrophic anterior maxilla, particularly if it is in the esthetic zone, poses a significant challenge in implant dentistry. Our case report underscores the efficacy of strategic implantology and immediate loading in such a compromised scenario. Traditional approaches frequently necessitate extensive bone augmentation procedures, which are associated with protracted treatment times, increased financial expenditure, and additional surgical morbidity. These factors can act as a significant deterrent for patients seeking prompt and less invasive solutions. In this case, the patient presented with a failed bridge and considerable bone loss in the anterior maxilla, rendering conventional implant placement and immediate loading seemingly improbable. However, the application of strategic implantology principles enabled us to surmount these limitations. By engaging cortical bone in strategic locations, such as the nasomaxillary buttress, high primary stability was achieved, even in areas characterized by limited bone quantity. This engagement of cortical bone is paramount for immediate loading in atrophic maxillae. Here we have used IF® Method 7a[13] to engage the nasal floor. But in tooth 13 (Fig. 14) where the horizontal bone supply is missing, IF® Method 7b would have been the better choice instead of IF® Method 7a as this carries the risk of exposure of the

vertical implant part on vestibular side of crest, so IF® Method 7b would have been the safer solution. The rule is: If in doubt, use IF® Method 7b instead of 7a.

The flapless approach further minimized surgical trauma, contributing to excellent post-operative healing and reduced patient discomfort. The decision to immediately load the implants constituted a critical aspect of this treatment. Immediate loading offers substantial benefits, including reduced treatment duration, fewer surgical interventions, and enhanced patient satisfaction.

The patient's feedback throughout the treatment process highlighted the importance of minimizing discomfort and expediting the restoration of normal function and esthetics. The meticulous planning and execution of the immediate loading protocol ensured a stable and functional prosthetic outcome, as evidenced by the successful two-year follow-up. This approach not only addressed the clinical challenges but also significantly improved the patient's overall experience, enabling them to rapidly regain their confidence and quality of life.

Conclusion

This case report emphasizes the significant potential of the technology of the Strategic Implant® combined with immediate loading protocols for the successful rehabilitation of the compromised anterior maxilla. By strategically placing implants to engage second and third cortical bone and employing a flapless technique, we were able to achieve excellent primary stability and deliver an immediate, fixed prosthetic solution, thereby circumventing the need for extensive and time-consuming bone augmentation procedures. The two-year follow-up demonstrates the long-term success of this approach in terms of both functional stability and esthetic outcome, significantly improving the patient's quality of life. This strategy offers a viable and highly beneficial alternative for patients facing severe bone deficiencies in the esthetic zone, prioritizing efficiency and patient comfort without compromising the predictability and durability of the restoration.

Patient Perspective

"I am delighted with the outcome. Immediate loading, with its benefits of reduced pain, shorter treatment time, and fewer materials, proved highly successful.

This approach, even in complex cases like mine, achieved excellent functional and esthetic results, restoring my ability to eat, speak, and smile with confidence, significantly improving my quality of life."

Informed Consent

Prior to the initiation of any treatment, the patient received a comprehensive explanation of their diagnosis, available treatment options, potential risks, anticipated benefits, and alternative procedures. This included a detailed discussion concerning conventional implant placement versus strategic implantology, as well as the immediate loading protocol. The patient was afforded ample opportunity to pose questions and articulate any concerns. All inquiries were addressed thoroughly, ensuring a complete understanding of the proposed treatment plan. The patient's comprehension and voluntary consent were formally documented, affirming their active participation in the decision-making process for their dental care.

References

1 Yadav RS, Sangur R, Mahajan T, Rajanikant AV, Singh N, Singh R. An alternative to conventional dental implants: Basal implants. Rama Univ J Dent Sci 2015;2:22-8.

2 Gupta A, Madan B, Bakshi M, Garg M. Full mouth rehabilitation with immediate loading basal implants. Int J Prev Clin Dent Res 2017;4:159-61.

3 Dobrinin O, Lazarov A, Konstantinovic V S, Sipic O, Siljanovski D, Milicic B. Immediate - functional loading concept with one-piece implants (Beces/Beces N/Kos/Boi) in the mandible and maxilla – A multi- center retrospective clinical study. J Evol Med Dent Sci 2019;8:306-15.

4 Gupta AD, Verma A, Dubey T, Thakur S. Basal osseointegrated implants: Classification and review. Int J Contemp Med Res 2017;4:2329 - 35.

5 Ihde S, Ihde A. Immediate Loading. Munich: Internat. Implant Foundation Publ; 2012.

6 Frost HM. Wolff's Law and bone's structural adaptations to mechanical usage: An overview for clinicians. Angle Orthod 1994;64:175-88.

7 Iezzi G, Pecora G, Scarano A, Perrotti V, Piattelli A. Immediately loaded screw implant retrieved after a 12-year loading period: A histologic and histomorphometric case report. J Osseointegration 2009;2009:54-9.

8 Ihde S, Ihde A. Considerations regarding dental implant surfaces, bone reaction and "Peri-implantitis". Ann Maxillofac Surg 2018;8:365-8.

9 Ihde S, Ihde A. Introduction into the Work with the Strategic Implant® Foundation Publishing; 2015.

10 Gaur V, Doshi A, Ihde S, Fernandes G. Immediate loading of edentulous mandibular arch with screw retained final prosthesis on strategic implants® with single piece multi-unit abutment heads: A case report. BAOJ Dent 2018;4:042.

11 Ihde S, Ihde A. Cookbook Mastication. Munich: International Implant Foundation; 2015.

12 Shahed SS, Nagaral SC, Mujawar AM. Basal implants: A breakthrough for atrophic ridges: Review. J Appl Dent Med Sci 2018;4:53.

13 Ihde A, Lazarov A, Gaur V, Lysenko V, Konstantinovic V, Gombkötö G, Palka L, Ihde S. Consensus Regarding 16 Recognized and Clinically Proven Methods and Sub-Methods for Placing Corticobasal® Oral Implants. Ann Maxillofac Surg. 2020 Jul-Dec;10(2):457-462. doi: 10.4103/ams.ams_62_20. Epub 2020 Dec 23. PMID: 33708595; PMCID: PMC7944016.