Publica	tal, Mini-Implants
	dran A, Salisbury HG.
come	e ancient times, it has been a challenge to up with the best way to replace missing
of representation	Previously, dentures were the standard way blacing lost teeth. Science, technology, and rehers have provided choices for better care
to sol	eth and understanding of oral health, leading utions for most oral problems. Dintegration has become the focus of modern antology, leading to the introduction and
impla	ement of the osseointegrated root form ant. Available implants vary in diameter from am to 7 mm. The mini implant is a dental
(less same	than 3 mm) and a shorter length but with the biocompatible material as compared with
reduc narro	ard dental implants. Mini implants present a red diameter (less than 3 mm), while w/conventional diameter implants typically a diameter greater than 3 mm. Therefore, the
use o enabl	f mini implants to retain overdentures es the use of less-complex surgical iques since the reduced diameter of the
impla bone	ant permits its placement in areas with low thickness. These implants are associated high survival rates, favorable marginal bone
of pa	and increased satisfaction and quality of life tients. The quantity and quality of bone e available in the jaw typically define the
numb	cteristics (diameter and length) and the per of implants. Overdentures retained by entional implants exhibit good long-term
cost,	difficulty with placing the implant in ed buccolingual dimensions of bone without
prese preve	eed for bone-grafting procedures, and the nce of chronic systemic diseases that can ent most advanced surgeries such as bone and lateralization of the inferior alveolar
nerve	e. Concomitantly, sometimes it is not sary to open flaps, decreasing morbidity g the postoperative period. These aspects are
accep	of the attractive factors that increase patient stance of mini implant treatments.
Mini	dental implants can be compared to entional implant systems. They are made of
usual abutn	ly consist of two parts, the implant and the nent. Mini implants have a one-piece
dentu	um screw with a ball-shaped head for are stabilization or a square prosthetic head xed applications, instead of the classic nent. Mini implants are protruded over the
gum	surface when they are placed into the bone; entional implants are placed under the gums.
Mini	implants should be considered for retaining lenture prosthesis as an alternative treatment
when Mini	standard implant placement is not possible. implants may be considered for the filitation of patients who express
dissa have	tisfaction with conventional dentures and limitations regarding the placement of ard implants. They are indicated for
Multi	cement of the teeth in a narrow ridge. The ple implants can be used for removable full rtial denture stabilization, and are offered at
with in the	er cost. These can be acceptable for patients limited economic capabilities. Mini implants edentulous or partially edentulous arch are
bone tradit	is insufficient for the placement of a ional width implant. Mini implants are also in the anterior maxilla because of decreased
palato interc	b-labial bone width and/or insufficient dental space. In the atrophic posterior lible, insufficient buccolingual bone width is
the co	ommon indication for mini-implant ment.
Mini	traindications implants should be avoided for patients who dedically unfit for the treatment.
Prosp evalu condi	pective patients must be thoroughly ated for all known risk factors and tions related to oral surgical procedures and
Conti	equent healing before any clinical treatment. raindications include but are not limited to ollowing:
•	Vascular conditions Uncontrolled diabetes Clotting disorders
•	Anticoagulant therapy Metabolic bone disease Chemotherapy or radiation therapy
•	Chronic periodontal inflammation Insufficient soft tissue coverage Metabolic or systemic disorders associated with wound and/or bone healing
•	with wound and/or bone healing Use of pharmaceuticals that inhibit or alter natural bone remodeling Disorders inhibiting patient ability to
•	Disorders inhibiting patient ability to maintain adequate daily oral hygiene Uncontrolled parafunctional habits Insufficient bone height and/or width
	Insufficient interarch space (not always placed in the narrow alveolar ridge) entulous arches, more than two implants are
usual unpre	ly needed due to narrow the diameter, the edictability of survival, and the lack of tific understanding. Treatment of children is
	ecommended until growth is finished and ayseal closure has been completed.
Preop	perative planning includes a maximum of a costic information. A panoramic x-ray is a
recon	num requirement, a Cone Beam CT scan is nmended for 3D planning especially in cases very narrow ridges. Raising a flap or
flaple	ess; If there is sufficient width of the ridge a ess transgingival technique for the pilot drill esible. When however a narrow ridge of
(crest	sive soft tissue is present a minimal flap cal incision) is recommended to reveal the This would allow exact placement of the
The r	ints at the correct angulation in the bone. mini dental implant system utilizes a self- ng threaded screw design and employs mally invasive surgical intervention. Implant
place left a	ment involves the following procedure: The nd right mental foramen are marked with an oral skin marker. The ridge is marked 7 mm
most	distal implant size. This safety zone des a potentially present 3 to 5 mm anterior
1	and a 2 mm security margin. plications
defin	orimary disadvantages of mini implants for itive prosthodontic treatment are as follows: The need for multiple implants because of
	the unpredictability and lack of current scientific guidelines and understanding The limited scientific evidence about long-
3.	The potential for fracture of the implant during placement
5.	Lack of parallelism between implants is less forgiving because of the one-piece design The reduction in resistance to occlusal loading, similar to narrow diameter implants
	Other disadvantages attributable to flapless surgery (when used) such as lack of bone visibility, inability to irrigate the bone, and
	contraindications in situations requiring alveoloplasty to gain prosthetic space
Desp	ite these disadvantages, the need for minients will continue to grow, especially among
1.	An increase in the need for complete dentures
2.3.	The increased cost of standard implants Access-to-care issues, especially among economically disadvantaged patients and
	patients indicated for maxillofacial prostheses Medically compromised patients who may
	not be candidates for traditional surgical procedures or ridge augmentation procedures
There	Increased interest in implant dentistry among general dentists efore, the current evidence must be reviewed
the su	ynthesized with the available clinical data on arvival of mini implants for definitive hodontic treatment.
To ac	estions cess free multiple choice questions on this
1	click here.
1	Assad-Loss TF, Kitahara-Céia FMF, Silveira SS, Elias CN, Mucha JN. Fracture strength of
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