KLE Society's Institute of Dental Sciences, Bengaluru
Department of Orthodontics and Dentofacial Orthopaedics

Journal Club Article Appraisal & Critiquing Form

Date: 27/10/21

Presented by : ABHIRAM.C

Citation (Author(s), year, title, Journal, volume, issue, pages):

Heba Akl, Al badley, mohamed el ghafour, Al Sharaby - Root resorption associated with maxillary buccal segment intrusion using variable force magnitudes A RCT - Angle Orthod 2021; 91: 733-742.

Introduction/Background:

Merit

1) Well explained etiology factors, pathophysiology of OIIRR.
2) Mentioned about force levels for posterior intrusion.

Purpose & or Problem Statement/hypothesis:

Specific hypothesis stated.

Literature Review:

Well covered literature review.

Research Methodology/ Design (setting, subjects, sample, selection): Randomized control trial

Demerit

1) More detailed CBCT images showing method of measurement.
2) Specific the 3D objectives not mentioned.
3) Subtype & detail of Bundary.

Merit

1) Study reported in clinical trials.
2) Data randomly selected.
3) Well explained inclusion & exclusion criteria.
4) Well structured methodology.

Variables:

Independent (Controlled): Force, Age, amount of apical bone, root length

Dependent (Outcome): Amount of root resorption

Data Collection & Measurement: Statistical analysis

Merit

1) Randomly allocated.
2) Done carefully done.
3) Power of study 80%.
4) Method error calculated.
5) Intra & inter examiner reliability calculated.

Data Analysis/Results

Demerit

1) Tables could have been further divided for simple understanding.

Merit

- Results calculated matched the objectives stated.

Study strengths

- Well discussed changes in the factors associated with toothpicks
- Well discussed about importance of CBCT.
- Well covered literature.

Study Weaknesses:

- Groups primary and 2° objectives not stated.
- Type of blinding not mentioned.
- Who was blinded not mentioned.
- Volumetric measurement of root resorption not done.

Discussion/Clinical Implications:

- Have discussed the obtained results with good literature review, comparing with the objectives stated at the start of the study.
- Well discussed about the various force levels & their implications on root resorption
- Discussed about the proximity of ... & root resorption.

27/10/21

Staff-in-charge

27/10/21

Professor & HOD

CONSORT 2010 checklist of information to include when reporting a randomised trial*

			Reported on page No
Title and abstract			
	1a	Identification as a randomised trial in the title	✓
	1b	Structured summary of trial design, methods, results, and conclusions (for specific guidance see CONSORT for abstracts)	✓
Introduction			
Background and objectives	2a	Scientific background and explanation of rationale	✓
	2b	Specific objectives or hypotheses	✓
Methods			
Trial design	3a	Description of trial design (such as parallel, factorial) including allocation ratio	✓
	3b	Important changes to methods after trial commencement (such as eligibility criteria), with reasons	✓
Participants	4a	Eligibility criteria for participants	✓
	4b	Settings and locations where the data were collected	✓
Interventions	5	The interventions for each group with sufficient details to allow replication, including how and when they were actually administered	
Outcomes	6a	Completely defined pre-specified primary and secondary outcome measures, including how and when they were assessed	X
	6b	Any changes to trial outcomes after the trial commenced, with reasons	X
Sample size	7a	How sample size was determined	✓
	7b	When applicable, explanation of any interim analyses and stopping guidelines	X
Randomisation:			
Sequence generation	8a	Method used to generate the random allocation sequence	✓
	8b	Type of randomisation; details of any restriction (such as blocking and block size)	✓
Allocation concealment mechanism	9	Mechanism used to implement the random allocation sequence (such as sequentially numbered containers), describing any steps taken to conceal the sequence until interventions were assigned	✓
Implementation	10	Who generated the random allocation sequence, who enrolled participants, and who assigned participants to interventions	X
Blinding	11a	If done, who was blinded after assignment to interventions (for example, participants, care providers, those	X

		assessing outcomes) and how	
	11b	If relevant, description of the similarity of interventions	✓
Statistical methods	12a	Statistical methods used to compare groups for primary and secondary outcomes	✓
Results			
Participant flow (a diagram is strongly recommended)	13a	For each group, the numbers of participants who were randomly assigned, received intended treatment, and were analysed for the primary outcome	✓
	13b	For each group, losses and exclusions after randomisation, together with reasons	X
Recruitment	14a	Dates defining the periods of recruitment and follow-up	X
	14b	Why the trial ended or was stopped	✓
Baseline data	15	A table showing baseline demographic and clinical characteristics for each group	✓
Numbers analysed	16	For each group, number of participants (denominator) included in each analysis and whether the analysis was by original assigned groups	✓
Outcomes and estimation	17a	For each primary and secondary outcome, results for each group, and the estimated effect size and its precision (such as 95% confidence interval)	✓
	17b	For binary outcomes, presentation of both absolute and relative effect sizes is recommended	✓
Ancillary analyses	18	Results of any other analyses performed, including subgroup analyses and adjusted analyses, distinguishing pre-specified from exploratory	✓
Harms	19	All important harms or unintended effects in each group (for specific guidance see CONSORT for harms)	✓
Discussion			
Limitations	20	Trial limitations, addressing sources of potential bias, imprecision, and, if relevant, multiplicity of analyses	✓
Generalisability	21	Generalisability (external validity, applicability) of the trial findings	✓
Interpretation	22	Interpretation consistent with results, balancing benefits and harms, and considering other relevant evidence	✓
Other information			
Registration	23	Registration number and name of trial registry	✓
Protocol	24	Where the full trial protocol can be accessed, if available	✓
Funding	25	Sources of funding and other support (such as supply of drugs), role of funders	

*We strongly recommend reading this statement in conjunction with the CONSORT 2010 Explanation and Elaboration for important clarifications on all the items. If relevant, we also recommend reading CONSORT extensions for cluster randomised trials, non-inferiority and equivalence trials, non-pharmacological treatments, herbal interventions, and pragmatic trials. Additional extensions are forthcoming: for those and for up to date references relevant to this checklist, see www.consort-statement.org.

Aearwal 21/10/21

KLE Society's Institute of Dental Sciences, Bengaluru
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Critical appraisal form for journal club articles
(Case reports/ Clinical articles)

Date: 03/02/2021.

Presented by : Ashwin.

Citation (Author(s), year, title, Journal, volume, issue, pages):
Kim et al, Maxillary molar intrusion with intraosseous decompensation to enable mandibular orthognathic surgery with rotational setback in a hemimandibular hyperplasia patient with mandibular prognathism & asymmetry. Am J Orthod Dentofacial Orthop 2020. 157:704-18.

Introduction/Background:
- Reason for mandibular rot back surgery well discussed.
- Well mentioned about role of pterygomasseteric sling stretch mentioned.
- Mentioned about importance of bijaw.

Diagnosis and etiology:
- Well documented case.
- Well mentioned clinical radiographic & models, CBCT records for diagnosis.

Treatment objectives:
Stated objective to resolve the patient's prolonged problems.

Treatment alternatives:
- Specific treatment alternatives mentioned
- Merits & demerits of each discussed well

Treatment Plan:

Selected to meet the prototyped problem list & Rx of procedure.

- Patients consent included

Grade and level of evidence for treatment plan:

- Grade : A

Level 1++

Treatment result:

- Planned treatment results attained
- Bright jaw done instead of bijaw.
- Stated surgical post Rx.

Discussion:

- Well discussed with references.
- Robust literature review supporting the treatment.
- Single jaw opted & mentioned advantages over bijaw.
- Well discussed about the patients interest for surgery.

Conclusions:

Summarized the case report well & brief

Staff-in-charge

Professor & HOD

03/02/21

CARE
case report guidelines

CARE Checklist of information to include when writing a case report

Topic	Item	Checklist item description	Reported on Line
Title	1	The diagnosis or intervention of primary focus followed by the words "case report"	X
Key Words	2	2 to 5 key words that identify diagnoses or interventions in this case report, including "case report"	✓
Abstract (no references)	3a	Introduction: What is unique about this case and what does it add to the scientific literature?	✓
	3b	Main symptoms and/or important clinical findings	✓
	3c	The main diagnoses, therapeutic interventions, and outcomes	✓
	3d	Conclusion—What is the main "take-away" lesson(s) from this case?	✓
Introduction	4	One or two paragraphs summarizing why this case is unique **(may include references)**	✓
Patient Information	5a	De-identified patient specific information.	✓
	5b	Primary concerns and symptoms of the patient.	✓
	5c	Medical, family, and psycho-social history including relevant genetic information	✓
	5d	Relevant past interventions with outcomes	✓
Clinical Findings	6	Describe significant physical examination (PE) and important clinical findings.	✓
Timeline	7	Historical and current information from this episode of care organized as a timeline	✓
Diagnostic Assessment	8a	Diagnostic testing (such as PE, laboratory testing, imaging, surveys).	✓
	8b	Diagnostic challenges (such as access to testing, financial, or cultural)	✓
	8c	Diagnosis (including other diagnoses considered)	✓
	8d	Prognosis (such as staging in oncology) where applicable	✓
Therapeutic Intervention	9a	Types of therapeutic intervention (such as pharmacologic, surgical, preventive, self-care)	✓
	9b	Administration of therapeutic intervention (such as dosage, strength, duration)	✓
	9c	Changes in therapeutic intervention (with rationale)	✓
Follow-up and Outcomes	10a	Clinician and patient-assessed outcomes (if available)	✓
	10b	Important follow-up diagnostic and other test results	✓
	10c	Intervention adherence and tolerability (How was this assessed?)	✓
	10d	Adverse and unanticipated events	✓
Discussion	11a	A scientific discussion of the strengths AND limitations associated with this case report	✓
	11b	Discussion of the relevant medical literature **with references**.	X
	11c	The scientific rationale for any conclusions (including assessment of possible causes)	✓
	11d	The primary "take-away" lessons of this case report (without references) in a one paragraph conclusion	✓
Patient Perspective	12	The patient should share their perspective in one to two paragraphs on the treatment(s) they received	X
Informed Consent	13	Did the patient give informed consent? Please provide if requested	Yes ☒ No ☐