ISSN: 2320-5407

International Journal of Advanced Research

Publisher's Name: Jana Publication and Research LLP

www.journalijar.com

REVIEWER'S REPORT

Manuscript No.: IJAR-52858 Date: 17/07/2025

Title: Glandular Odontogenic Cyst of Mandible: a rare entity revealed

Recommendation:
Accept as it is .....
Accept after minor revision.....Yes.....
Accept after major revision .....
Do not accept (*Reasons below*) .....

Rating	Excel.	Good	Fair	Poor
Originality	•			
Techn. Quality	•			
Clarity		•		
Significance	•			

Reviewer Name: Dr. Sireesha Kuruganti **Date:** 17/07/2025

Reviewer's Comment for Publication.

(*To be published with the manuscript in the journal*)

The reviewer is requested to provide a brief comment (3-4 lines) highlighting the significance, strengths, or key insights of the manuscript. This comment will be Displayed in the journal publication alongside with the reviewers name.

The manuscript is a well-presented case report that contributes to the understanding of Glandular Odontogenic Cyst, a rare and challenging lesion. The detailed clinical, radiological, and histopathological descriptions, coupled with a thorough discussion referencing relevant literature, make it a valuable contribution. The figures are illustrative and enhance the understanding of the case.

Detailed Reviewer's Report

A detailed in-depth review of the manuscript, including line numbers for specific references, is provided below:

General Comments:

The manuscript presents a case report of a Glandular Odontogenic Cyst (GOC) of the mandible, a rare entity, and discusses its clinical, radiological, and histopathological aspects, along with treatment. The case report is well-structured and provides relevant details. The discussion effectively highlights the diagnostic challenges and the importance of thorough evaluation for this aggressive lesion.

Specific Comments and Suggestions for Improvement:

* Title (Lines 3-4): The title "Glandular Odontogenic Cyst of Mandible: a rare entity revealed" is appropriate and concise.

* Abstract (Lines 6-15):

* The abstract effectively summarizes the key aspects of GOC, its importance, the case presented, and the conclusion.

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* Line 7: "solitary or multiloculated intrabony cysts." could be rephrased slightly for better flow, perhaps "solitary or multiloculated intrabony cysts of odontogenic origin."
* Line 8: "keratocystic odontogenic tumors" is the older terminology; "odontogenic keratocyst" or "keratocystic odontogenic tumor (KCOT)" is more current. Consider updating.
* Keywords (Lines 17-19): The keywords are relevant and aid in searchability.
* Introduction (Lines 22-31):
* Line 22: "Glandular odontogenic cyst (GOC) is an intrabony, developmental cyst of the jaw which is a clinically rare and histopathologically unusual cyst with unpredictable and potentially aggressive behavior." is a good introductory sentence.
* Line 25: "Thus, GOCS, is a rare, but now a well-known entity comprising for about < 0.5% of all odontogenic cysts." This provides good context.
* Lines 27-31: The historical overview of GOC's documentation and initial proposed terms like "sialo-odontogenic cyst" are valuable and well-cited.
* Nomenclature and Historical Context (Lines 32-40):
* Line 32: "A year later, Gardner et al reported eight other cases and gave the name "glandular odontogenic cyst";" This clearly explains the origin of the current name.
* Lines 36-40: The inclusion in WHO reports and other proposed terms ("mucoepidermoid cyst," "polymorphous odontogenic cyst") adds important historical and classification context.
* Epidemiology and Clinical Presentation (Lines 42-51):
* Lines 42-45: Information on age prevalence and gender predilection is well-presented, noting the South African population difference.
* Lines 46-48: The location prevalence in mandible (anterior region) versus maxilla is clearly stated.
* Lines 49-51: The common presenting complaint of swelling/expansion and the often asymptomatic nature are important clinical details.
* Microscopic Features (Lines 52-56):
* Lines 52-56: A concise description of the potential origin and key microscopic features is provided.
* Radiographic Presentation (Lines 57-63):
* Lines 57-59: The description of radiographic appearance as unilocular or multilocular radiolucency with well-defined margins and scalloped border is accurate.
* Lines 60-63: The emphasis on histological analysis for differentiation due to non-peculiar radiological findings is crucial and well-highlighted.
* Treatment (Lines 64-65):
* Line 64: The statement that treatment is controversial and varies is good.
* Aim of the Report (Lines 66-69):
* Lines 66-69 clearly state the aim, focusing on a rare GOC case and emphasizing its clinical, radiographic, histopathological, and treatment aspects.
* Case Report - Patient History and Examination (Lines 71-83):
* Lines 71-73: Patient demographics and chief complaint are clearly stated.
* Lines 74-76: General physical examination findings and history of swelling are well-documented.
* Line 78: "No symptom of pain or any sensory changes" is important for differential diagnosis.
* Lines 79-81: Intraoral examination findings, including swelling, bony expansion, mobility, and absence of inflammation, are detailed.
* Lines 82-83: Palpation findings and normal blood investigations are noted.
* Radiographic Evaluation (Lines 84-88):
* Lines 84-85: OPG findings of a corticated, unilocular radiolucency are described.
* Line 86: Aspiration yielding blood-tinged fluid and initial differential diagnosis of Aneurysmal Bone Cyst are relevant.
* Line 87: The suggestion for CBCT scan is a good clinical decision.
* CBCT Mandible Findings (Lines 89-97):

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* This section provides detailed and precise measurements and characteristics from the CBCT scan, including size (27.6mm \times 9.8mm \times 19.7mm). This level of detail is excellent.
* Line 95: "No root resorption / root flaring seen." is an important negative finding.
* Line 96: "Thinning and breach in both labial and lingual cortex seen." provides critical information about the lesion's invasiveness.
* Surgical Management (Lines 98-110):
* Lines 98-100: Informed consent and surgical procedure (enucleation & curettage under general anesthesia) are clearly stated.
* Lines 101-102: Description of the incision and flap raising is standard procedure.
* Lines 103-107: Creation of bony window, enucleation & curettage, extraction of teeth, and bone contouring are well-described.
* Lines 108-110: Primary closure, histopathological examination of cystic lining, and post-operative follow-up are important aspects of patient care and documentation.
* Discussion (Lines 114-166):
* Lines 114-116: The discussion effectively reiterates GOC's rarity and frequency.
* Lines 117-119: The mention of GOC being a diagnostic challenge despite documented cases is pertinent.
* Lines 120-122: The consistency of the current case's age and site of occurrence with literature findings is noted.
* Lines 123-125: The non-specific radiographic presentation and the impossibility of sole reliance on clinical/radiographic findings for diagnosis are well-emphasized.
* Line 126: "Histopathological examination alone allow for certain diagnosis of the cyst." This sentence should be rephrased to "Histopathological examination alone allows for certain diagnosis of the cyst.".
* Lines 127-130: The list of conditions GOC can be clinically/radiographically confused with (dentigerous cyst, OKC, radicular cyst, ameloblastoma, etc.) is comprehensive and valuable for differential diagnosis.
* Lines 131-133: The discussion on microscopic resemblance to LPC, BOC, and central MEC is crucial for pathologists.
* Lines 134-140: The differentiation from LPC and BOC based on specific microscopic features (mucous and ciliated epithelial cells in GOC, absence in BOC) is well-explained.
* Lines 141-149: The detailed explanation of Kaplan et al.'s major and minor criteria for GOC diagnosis, and the subsequent inference that not all major criteria are always necessary, is a strength of the discussion.
* Lines 150-157: Fowler et al.'s criteria and the statistical analysis suggesting at least 7 out of 10 criteria for reliable diagnosis are important for histological interpretation.
* Lines 158-163: The role of cytokeratin 18 and 19 expression in differentiating GOC from CMEC is a valuable addition, demonstrating a deeper level of diagnostic consideration.
* Lines 164-166: The concluding remark that accurate diagnosis requires correlation of histologic features with clinical and radiologic information is a strong and accurate summary. The mention of treatment modalities and recurrence rates provides important clinical context.
* Treatment Outcome (Lines 167-169):
* Lines 167-169: The positive outcome of no recurrence with enucleation and curettage in the presented case is a good concluding point for the discussion.
* Conclusion (Lines 171-175):
* Lines 171-175 effectively summarize the aggressive nature and high recurrence rate of GOC, emphasizing the need for meticulous clinical, radiological, and histopathological evaluation. The recommendation for CT/CBCT scans for accurate lesion information is also appropriate.
* References (Lines 180-219):
* The references are well-formatted and appear to be relevant to the content discussed.

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Figures (Pages 8-13):
* Fig. 1 (Page 8): Shows intraoral examination with swelling. Good visual aid.
* Fig. 2 (Page 8): Shows blood-tinged fluid on aspiration. Supports the case report details.
* Fig. 3 (Page 9): OPG revealing cystic lesion. The arrows indicating the lesion are helpful.
* Fig. 4 (Page 10): CBCT Scan. Essential for showing the lesion's characteristics in 3D.
* Fig. 5 (Page 11): Bony window created during surgery. Helps visualize the surgical access.
* Fig. 6 (Page 12): Enucleation & curettage done. Shows the surgical site post-removal.
* Fig. 7 (Page 12): Histopathological image. This is a critical figure. The description "cystic lining of pseudostratified epithelium hobnail cells (indicating with red arrow) in superficial epithelium and connective tissue wall, mucous secreting cells with intra-epithelial sperule formation and with loosely arranged collagen fibre bundles and fibroblasts" is detailed and aligns with the discussion. The red arrow is helpful.
* Fig. 8 (Page 13): Post-follow-up. Shows healing and lack of recurrence, supporting the positive outcome.

Overall Impression:
The manuscript is a well-presented case report that contributes to the understanding of Glandular Odontogenic Cyst, a rare and challenging lesion. The detailed clinical, radiological, and histopathological descriptions, coupled with a thorough discussion referencing relevant literature, make it a valuable contribution. The figures are illustrative and enhance the understanding of the case. The minor suggestions regarding terminology and phrasing would further improve its clarity and adherence to current standards.