Peer Review File

Article information: https://dx.doi.org/10.21037/fomm-23-43

First Round

Reviewer A

Comment 1- remove "report of a interesting case" from title. It no adds nothing and titles must be concise.

Reply 1- " report of an interesting case" has been removed. Title has been revised to " The atypical clinical case of infected odontome in geriatric patient"

Changes in the text- title changed

Comment 2-
Introduction must be referenced
Reply 2- reference has been added citing age incidence of odontome.
Changes in the text- reference added in line 35.
Comment 3- line 69. Patient is asymptomatic. For how long she is being accompanied. There is a lack of time in the whole description and it must be added
Reply 3- her recent follow up was one year post surgery.
Changes in the text- this information has been added in line 69
Comment 4- Discussion: why co-amoxiclav? use literatureevidences to justify this choice
Reply- Co- amoxiclav is commonly used antibiotic prophylactically and therapeutically in minor oral surgical procedures. Reference citing a meta- analysis about use of co amoxyclav in third molar surgery has been added. We could not find level 1 evidence specifically for surgery for excision of odontomes due to paucity of cases. Third molar surgery is the most commonly performed minor oral surgery. so we feel that it is reasonable to use same conclusion for this case as well.
Changes in the text- reference number 2 in the list is added
Comment 5. You must expand discussion on other ethiologies. I believe your mains discussion must be about this. And your discussion is too short on this subject. Notably MRONJ, a worldwide pandemic that is converrning every maxillofacial surgeon.
Reply- we agree about this with the respected reviewer. American association of oral maxillofacial surgeons (AAOMS)has recently published their position paper on MRONJ in 2022. Our discussion about MRONJ relevant to this case has been based on this paper.
Changes in text- Relevant changes have been added in discussion. This paper has also been cited to in the list of references.
Comment 6. I would to conclusion a sentence about "Regardless of the patients' age, odontomas should not be ruled out as a potential etiology in similar cases"
Reply- we agree about this with the respected reviewer.
Changes in the text- We have made a mention about this in the concluding remarks .
Comment 7. References: you have used old references in majority of cases. I think there is updated and more recent references on this topic. I propose a massive change in these references.

Notably from high-grade journals, if possible. Remove all book references, always try to use article ones

Reply- We beg to differ about this aspect with respected reviewer. We would politely like to bring to notice of respected reviewer that more than half of our references are from the literature published in last five years. Text Books give concrete, established, time tested facts about the subject under consideration which are referred to from time to time. So we don't feel it appropriate to remove book references.

Changes in the text- Reference number 2 has been added. Order has been changed for the rest.

Reviewer B

Thank for the presented interesting material, both for scientists and practitioners. I`d like to recommend to make a correction for the title of the article. Like a "The atypical clinical case of infected odontome in geriatric patient" or similar.

Reply- we agree about this with the respected reviewer

Change in the text- relevant change has been made to title of our manuscript.

Reviewer C

This is an interesting and unusual case report, that is focused on a full of information presentation, with nice photographs.

The authors should pay attention to small grammatical errors and concordance mistakes.

Also, the authors should discuss more on how the MRONJ diagnosis was aborted, and why an infected odontoma associated with MRONJ was not a possibility, due to the related condition of drug usage and underlying osteopenia.

Reply- we agree about this with the respected reviewer. Grammatical errors have been corrected using spell check.

Changes in the text- Information has been added in line 61 and 68.

Second Round

Editorial Comments (Please do not delete this section. Editorial comments should also be replied point by point)

Comment 1: In the title, please clearly identify this manuscript as a case report. E.g. " The atypical clinical case of infected odontome in geriatric patient: a case report".

Reply 1: 'case report' has been added to the title.

Changes in the text- revised title is ' The atypical clinical case of infected odontome in geriatric patient: a case report' line 2

Comment 2: (1) In the Abstract-Background, the authors need to clearly clarify why the case report is unique and what it contributes to the existing literature. For the authors' reference, specify like "Here we report a geriatric case of …. This case is unique in terms of…".

Reply 2: (1) desired change has been made. line number 35-37

Changes in the text: Here we report a geriatric case of infected odontome. This case is unique in terms of patients age and uncommon presenation in the form of intra-oral sinus on alveolar mucosa

Comment 2 :(2) In the Abstract-Case Description, please add the detailed information about the main interventions and outcomes. For the authors' reference, "The fistula failed to resolve following a course of oral antibiotics (co- amoxiclav 625 mg bid for 7 days) and antibacterial mouth rinses with chlorhexidine" should be described before stating "However upon excision..". "She was successfully treated under local anesthesia in dental office and is disease free till date", the readers might fail to know what intervention was used. Besides, please provide detailed date instead of using vague descriptions "till date".

Reply 2:(2) desired change is made line number 41-43,46

Change in the text- The fistula failed to resolve following a course of oral antibiotics (co- amoxiclav 625 mg bid for 7 days) and antibacterial mouth rinses with chlorhexidine However upon excision and histopathologic examination it turned out to be infected odontoma. This was a surprise diagnosis at this age. She was successfully treated under local anesthesia in dental office and is disease free till 30th April 2023.

Comment 3- Keywords

Please add "case report" as a keyword in this manuscript, and kindly keep the number of keywords under 5.

Reply-case report is added as keyword . line number 50,51

Change in the text- Keywords: fistula, geriatric, mandible, , odontome, case report

comment -4. Highlight Box

(1) In the "Key findings", the authors could describe the encouraging specific findings from the case report, not just the repeated content with that in Abstract-Case Description.

Response—specific findings added

Changes made in text-A 81 year old woman was referred to us for management of fistula on left mandibular alveolus. Due to history of consumption of bisphosphonates our working diagnosis was MRONJ. The lesion failed to resolve on administration of co-amoxyclav and chlorhexidine rinses. Upon surgical exploration, a calcified mass was found connected with fistulous tract. Histopathological diagnosis was infected odontome

Comment 4(2)- In the "What is known and what is new", please keep two points in this section for clarity, so the reader can distinctly identify what is already known and what new insights are provided
Response- recommended change has been made
Changes in text-

What is known and what is new?

What is known ?

- Odontoma are odontogenic tumors that occur in 2nd -3rd decade of life. They are almost unheard of in 7th-8 th decade . They seldom cause symptoms or get infected and are chance radiological finding in majority of cases .

- Bisphosphonates can cause osteonecrosis of jaw bone in some patients. These are initially managed with antibiotics and antiseptic mouth rinses. Those which fail to resolve are managed surgically.

- What is new?

- As the fistula failed to resolve with antibiotics,it was explored under local anesthesia.However upon excision and histopathologic examination it turned out to be infected odontoma . This was a surprise diagnosis at this age.

Comment 4(3)- We also suggest the authors avoid using the same repeated summary in the "what is the implication, and what should change now".
Response- summary text has been changed
Change in text- Odontome can be included as one of the differential diagnosis even when evaluating a geriatric patient.

Comment 5. Introduction
(1) In the Introduction, please consider reorganizing the content to provide a more informative Introduction according to the "Author Instruction" (https://cdn.amegroups.cn/static/public/2.5-Structure%20of%20Case%20Reports-template-V2022.11.4.docx). In brief, Introduction should be structured in three parts: a) Background, b) Rationale and knowledge gap, c) Objective.

Response- content has been reorganized .
Changes in text- Background-

The odontome is a developmental tumour-like mass consisting of disorderly arranged dental tissues. It has a limited growth potential and can be considered as a dental hamartoma rather than true neoplasm .This is because although epithelial and the ectomesenchymal tissues appear normal morphologically, they have disturbed structural arrangement.[1] Odontomas are of two types: complex odontoma and the compound odontoma. The distinction between them is based on either the appearance of well-organized tooth like structures (compound odontomas) or on a mass of disorganized odontogenic tissues (complex odontomas).

They grow slowly, can expand the jaw, and are painless mostly. They are often detected on routine radiographs or diagnosed through a failed eruption of a permanent tooth. Based on 137 cases from the odontoma survey the mean age at the time of diagnosis was 19.9 years (range. 2 to 74 years).Almost 84 % of cases occurred before the age of 30.Only 1 case was found in the 70-79 yrs age group. Incidence of associated pain and inflammation was seen in only 4% patients.[3] Conservative complete local excision is considered curative for this lesion.

Rationale and knowledge gap

-Because odontome is a developemental odontogenic anomaly.maximum cases are young patients in second and third decade of life. Thus they do not included in differential diagnosis when evaluating a geriatric patient in seventh and eighth decade.

Objective- We report a unique case of infected odontoma in 81 year old woman. She was referred to us for evaluation of fistula on alveolar ridge by her dentist. Due to past medical history of oral bisphosphonate use, medication related osteonecrosis of the jaws (MRONJ) was our working diagnosis. Due to failure of lesion to resolve following medical management we explored the area. To our surprise, the fistulous tract was connected to hard calcified mass in the alveolar bone. Upon excision and submission for histopathogy, it was reported as complex odontoma. Healing was uneventful and the patient is under regular follow up.

Comment 5(2) The introduction is too brief and does not provide enough background to contextualize your case and discussion. It would be beneficial to provide a comprehensive overview of odontoma, such as epidemiology, symptoms, prognosis, and common treatments, to give readers who may be unfamiliar with it a more complete understanding of the condition. The first two paragraphs of the discussion are more like the background information. Please consider moving them to Introduction-Background.
Response- introduction expanded. First two paragraphs of discussion moved to introduction –background
Change in text-
The odontome is a developmental tumour-like mass consisting of disorderly arranged dental tissues. It has a limited growth potential and can be considered as a dental hamartoma rather than true neoplasm .This is because although epithelial and the ectomesenchymal tissues appear normal morphologically, they have disturbed structural arrangement.[1] Odontomas are of two types: complex odontoma and the compound odontoma. The distinction between them is based on either the appearance of well-organized tooth like

structures (compound odontomas) or on a mass of disorganized odontogenic tissues (complex odontomas).

They grow slowly, can expand the jaw, and are painless mostly. They are often detected on routine radiographs or diagnosed through a failed eruption of a permanent tooth. Based on 137 cases from the odontoma survey the mean age at the time of diagnosis was 19.9 years (range. 2 to 74 years).Almost 84 % of cases occurred before the age of 30.Only 1 case was found in the 70-79 yrs age group. Incidence of associated pain and inflammation was seen in only 4% patients.[3] Conservative complete local excision is considered curative for this lesion.

Comment 5(3) In the "Rationale and knowledge gap" subsection, please clearly point out why the authors need to write this article, what has been previously reviewed but not discussed (so this review needs to be discussed), and what value this article has to the practice.
Response- reason for writing the article given and what it adds to practice.
Changes in the text-
Rationale and knowledge gap

-Because odontome is a developemental odontogenic anomaly.maximum cases are young patients in second and third decade of life. Thus they do not included in differential diagnosis when evaluating a geriatric patient in seventh and eighth decade.

. They seldom cause symptoms or get infected and are chance radiological finding in majority of cases.

Objective- We report a unique case of infected odontoma in 81 year old woman. She was referred to us for evaluation of fistula on alveolar ridge by her dentist. Due to past medical history of oral bisphosphonate use, medication related osteonecrosis of the jaws (MRONJ) was our working diagnosis. Due to failure of lesion to resolve following medical management we explored the area. To our surprise, the fistulous tract was connected to hard calcified mass in the alveolar bone. Upon excision and submission for histopathogy, it was reported as complex odontoma. Healing was uneventful and the patient is under regular follow up.

Comment 6. Case Presentation
(1) Please kindly change the subtitle "Case Description" to "Case Presentation".
Response –necessary change made line number 95

Changes in text- Case Presentation

Comment 6(2) For the authors' kind reference, we prefer the detailed time information of the case report (Date, Month, Year) in the manuscript.
Response- time information provided line number-97,130,131

Changes in text- A 81 year old woman was referred to us by her general dental practitioner for evaluation of fistula on mandibular alveolar mucosa on 1st March 2022.

. Patient is being followed up regularly and is asymptomatic at her recent follow up one year after surgery.

Comment6 (3) Does any pharmacologic be given after treatment? If done, please report them, including the dosage and duration.
(4) We suggest authors disclose no adverse and unanticipated events in the manuscript, not just in the checklist.
Response- clarification provided line number 119,120,121
Changes in text-
Wound healing was uneventful. Sutures were removed at one week. Authors disclose no adverse and unanticipated events during or after surgery. No medication was administered following suture removal

Comment-7. Discussion

(1) Similarly, discussion is structured in five parts: a) Key Findings, b) Strengths and limitations, c) Comparison with similar researches, d) Explanations of findings, e) Implications and actions needed.
Response- discussion rearranged in 5 parts line number 149-199
Changes in text-

a)Key findings-

The 81 year old lady presented with fistula on mandibular alveolar ridge . it failed to resolve with antibiotics. Upon surgical exploration, fistulous tract was connected with hard calcified mass within alveolar bone.MRONJ was considered distinct possibility in our case due to history of consumption of oral bisphophonates in past. The drug inhibits osteoclast action and thus interferes with normal bone turnover. This makes jaw bone more susceptible to infection and loss of vitality. American Association of Oral and Maxillofacial Surgeons has published their position paper on this subject recently in 2022[4]. It gave detailed account of medications resulting in bone necrosis, patients at risk, pathophysiology, preventive aspects and management strategies. With reference to this paper , following is the pertinent information as regards this case.

Clinically they present with dull, aching bone pain in the jaw, which may radiate to the temporomandibular joint region in the earlier stages. In the later stages, regions of osteosclerosis involving the alveolar bone and/or the surrounding basilar bone are seen. There is exposed and necrotic bone intra-orally or fistula that probes to the bone in patients who are asymptomatic and have no evidence of infection/inflammation.[4] The majority of patients on bisphosphonates take a low dose orally for osteoporosis prevention. Their risk of developing MRONJ is less in patients consuming oral bisphosphonates than those patients on a high dosage taken intravenously for malignancy affecting the bones. Nevertheless it remains a possibility. MRONJ is more likely to appear in the mandible (75 percent) than the maxilla (25 percent).[5]

Other diagnostic possibilities considered in present case were as follows-

Infected dental root piece was a possibility. However the outline of the mass on CT scan was quite irregular and did not resemble that of premolar root. Hence this was considered unlikely. **Chronic sclerosing osteomyelitis** (sclerosing osteitis) is observed as proliferative osteoblastic response around carious tooth of children and young adults with high tissue resistance. Root or socket outline is clearly

visible which is absent in present case.[6] **sclerotic cemental masses of the jaws** -38 cases were reported by Waldron and his coworkers under the term sclerotic cemental masses of the jaws which produced pain, drainage, or localized expansion. The radiographic appearance was also similar to that of diffuse sclerosis. However these are multiple, symmetric lesions hence ruled out in present case.[7] **Idiopathic osteosclerosis**, which is generally accepted as developmental intraosseous anatomic variation and characterized by the occurrence of asymptomatic, round, elliptical, or irregular radiopaque mass, in the bicuspid, molar region of the mandible similar to this case. [8]It is asymptomatic and may remain static or demonstrate slow growth that usually stops when the patient reaches skeletal maturity. This is ruled out due to fistula formation and dull ache in our case. **Dense bone island (enostoma)** are incidental findings, consisting of failure of resorption of secondary spongiosa within the trabecular bone [9,10,11]It has no specific relationship with the dentition unlike present case. **Bone scar**—Osteosclerosis commonly follows chronic peri-apical inflammation. It often remains as a sclerotic area of bone after extraction. It does not lead to fistula formation. Hence it was considered unlikely diagnosis.[6]

b)Strengths and limitations-

Strength-This case is unique for its occurrence of infected odontome in 81 year old lady in the form of non healing fistula on mandibular alveolus.

Limitations- This is a single case report.

c) Comparison with similar researches- We have not come across similar case in English language literature

d)Explanation of findings- We feel that the odontome within the alveolus must have come in contact with the oral environment to get secondarily infected. But we can not conclusively say 'How?'.

(2) Please make sure all statements are evidence-based. For example, please provide previous studies for references for "American Association of Oral and Maxillofacial Surgeons has published their position paper on this subject recently in 2022. It gave detailed account of medications resulting in bone necrosis, patients at risk, pathophysiology, preventive aspects and management strategies" (please check the references in the full text).
Response- reference provided line number 143
Chnages in text-. American Association of Oral and Maxillofacial Surgeons has published their position paper on this subject recently in 2022[4]

(3) It is necessary and important to transparently discuss the strengths and limitations of the study in the Discussion. A separate paragraph is highly suggested.

Response- strengths and limitations discussed in seperate paragraph.line 178-181

Changes in text- b)Strengths and limitations-

Strength-This case is unique for its occurrence of infected odontome in 81 year old lady in the form of non healing fistula on mandibular alveolus.

Limitations- This is a single case report.

Comment 8. References
Reference 9 seems not to be cited in the manuscript.
Response- reference number 9 is cited. Line number 174
Changes in text-
Dense bone island (enostoma) are incidental findings, consisting of failure of resorption of secondary spongiosa within the trabecular bone [9,10,11]

Comment 9-Written informed consent
Please specify "Written informed consent was obtained from the patient." in the manuscript (not just in the checklist). More details please see "3.6.5 Footnote-Ethical Statement" at https://fomm.amegroups.org/pages/view/guidelines-for-authors#content-3-6-5 .
Response- necessary mention has been made. Line 194-196
Changes in text-
Written informed consent
Written informed consent was obtained from the patient for publishing in scientific journal.

Comment 10. CARE checklist
Too many places with NA. Please make sure all essential items are filled with lines and paragraphs. For example: Item 10b: the related content was provided in the case presentation on page 4/ Lines 101-102 not NA.
Response – required changes have been made with references to manuscript text
Changes in text- revised care check list has been attached as a seperate file in the mail.