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Challenges in the Management of a Rapidly Progressing Odontogenic Space Infection in 3rd Trimester of Pregnancy – A Case Report

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Introduction

The treatment of a maxillofacial infection is a common scenario for oral and maxillofacial surgeons. Occasionally, such infections also occur in pregnant women; these patients require special considerations in maintaining the maternal-fetal normal pregnancy **[**1**]**. Non-obstetric disease requiring surgery may complicate pregnancy and jeopardize maternal and fetal well-being. Surgery may be safely done if the physician is aware of anatomic and physiologic alterations during gestation that necessitates an altered approach to diagnosis and management.

Pregnancy is associated with compromised oral health, but the implications of severe odontogenic infections in pregnancy are poorly understood and are even more difficult to plan. Severe odontogenic infections need an aggressive approach which is a concoction of both pharmacology in the form of sensitive antibiotics along with the surgical management of aetiology.

Here we report a case of a gravid patient in her 3rd trimester who underwent successful surgical management of a spreading odontogenic infection at our institution along with the discussion on the implications of pregnancy on the treatment planning of the same.

Case report

A 23-year-old female who was 28 weeks pregnant presented to our unit in the Department of maxillofacial surgery OPD with the complaint of pain in the right lower back region of the jaw for one day. The patient gave a history of pain and food lodgement initially 7 months back in the same region for which she visited the local Government hospital general practitioner who advised warm saline gargles and pain killers. The pain then was intermittent, throbbing in nature and was relieved with the pain killers with no aggravating factors. One month back patient visited a local dentist due to severe pain after a fracture of the tooth while eating food and was advised oral analgesics and treatment only after the patient conceives. The pain now had become continuous and sharpshooting that was relieved intermittently with the oral painkillers.

With no improvement in the condition, the patient reported to our OPD subsequently with the same complaint but increased severity, with referring pain to her right ear and temple region of forehead, dysphagia, reduced mouth opening and 2 spikes of fever **[Fig.1]**.

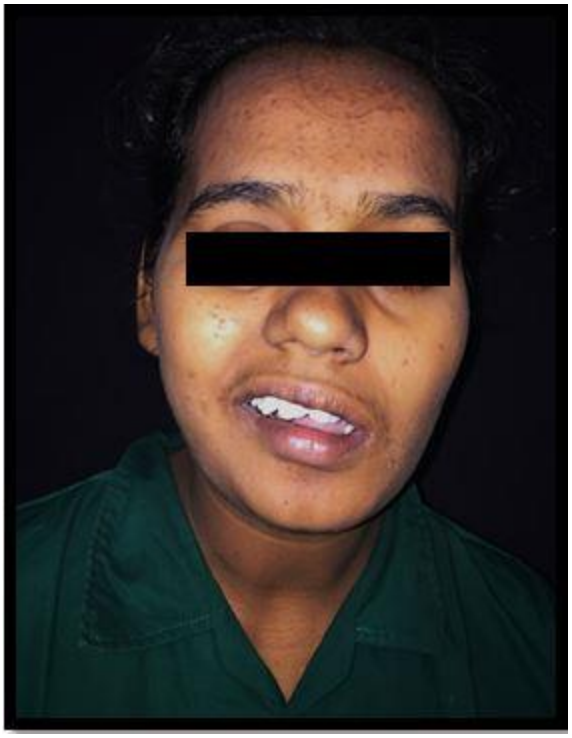

Figure 1

On examination, extra orally patient had no apparent asymmetry. On intraoral examination, Maximal Inter incisal opening was approximately 8 mm, partially erupted right lower third molar with erythematous gingiva and diffuse swelling in the Right RMT region and buccal vestibule causing obliteration of the sulcus w.r.t first, second & third molar region along with tenderness on percussion. The complete assessment was not possible then due to reduced mouth opening.

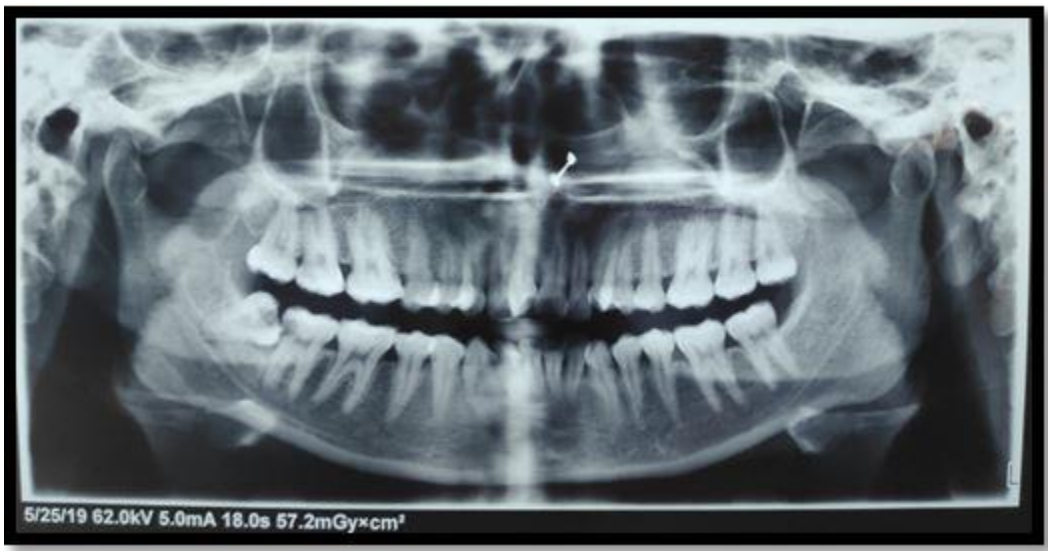

Figure 2

The Orthopantomogram (OPG) **[Fig.2]** of her jaw was done and showed deep occlusal radiolucency in the mesioangular impacted right lower wisdom tooth indicating decay and diffuse radiolucency of approximately 0.5cm-1cm peri-apically suggestive of periapical abscess w.r.t the same tooth. The patient was advised oral antibiotics (Tab. Amoxicillin + Clavulanic acid 625mg, Tab. Metronidazole 400mg, Tab. Paracetamol 500mg) and symptomatic treatment as the patient was advised admission but was not willing for the same at first but reported 10 days later with worsened symptoms and reduced appetite secondary to reduced mouth opening with fever. The patient was admitted under our unit at the same hospital and was started with IV Ceftriaxone 1gm BID and IV Ornidazole 500mg BID, Tab. Nifedipine 10mg as per the advice of the Obstetrics and Gynaecology team for pre-eclampsia. On admission, the patient's vitals were stable and the patient was febrile.

The patient was diagnosed as right Pterygomandibular space infection progressing to deep neck space infections secondary to odontogenic infection associated with impending airway compromise.

The patient was posted for emergency intervention and was intubated using awake fibreoptic intubation followed by incision and drainage of Pterygomandibular and Peritonsillar space abscesses, surgical removal of 48 and placement of flat, corrugated rubber drain under General Anaesthesia **[Fig.3]**.

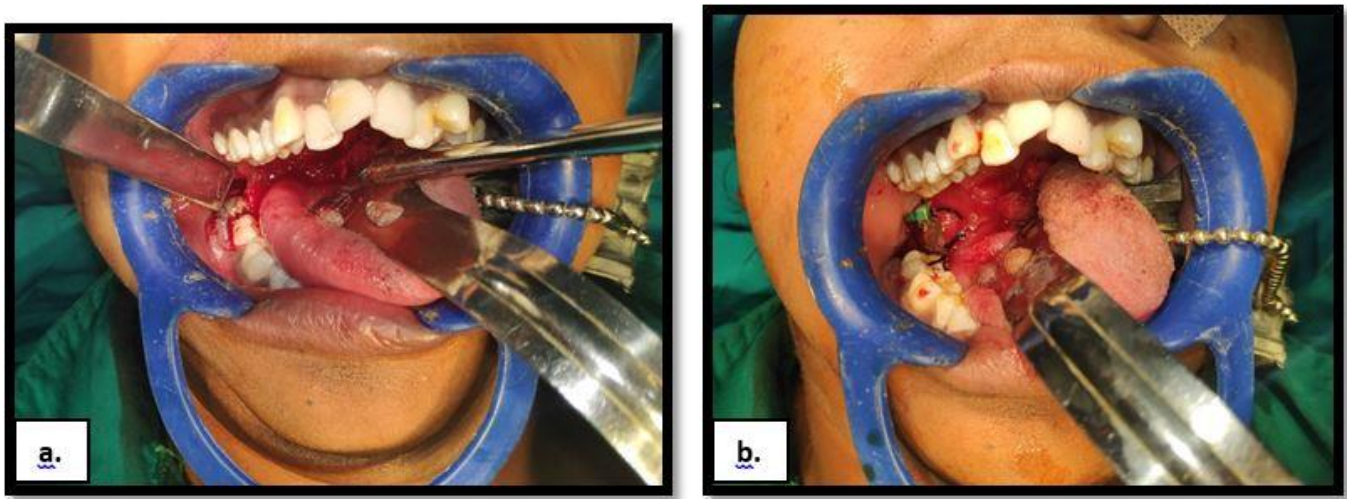

Figure 3

She remained on IV antibiotics for a 5-day course and maintenance of oral hygiene. The drain was removed after 2 days postoperatively. The patient was discharged after 5 days of hospital admission once all the complaints had resolved and were disease-free from our end **[Fig.4]**.

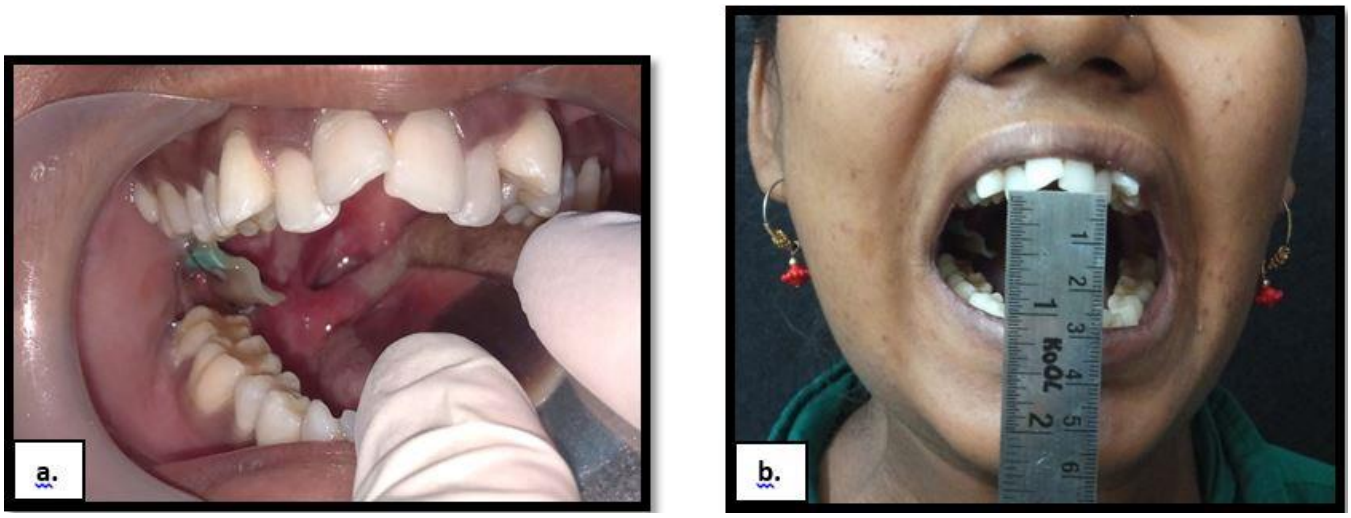

Figure 4

The patient was reviewed by the Obstetrics and Gynaecology team throughout her admission and surgical intervention, and there was no measured insult to the foetus.

Discussion

Owing to the multiple system changes during pregnancy including potential risks of some medications and imaging modalities, health practitioners may be reluctant to treat orofacial infections aggressively in pregnancy. Severe infections during pregnancy can be life-threatening for both the mother and the foetus **[**6**]**. The risk of morbidity to the mother and foetus with progressing odontogenic infection, therefore, needs to be weighed up against the potential risks associated with dental or surgical treatment **[**3**]**.

In this case, the challenge was the decision to surgically treat the case due to rapidly progressing disease, bearing in mind the morbid complications that may occur intraoperative and postoperative. It was important to do the risk-benefit analysis for both the foetus and the mother. It was hence decided that the risk of harm for the mother-foetus was far severe due to the spread of infection compared to the stress of surgical management, which with the given scenario was imperative. A delay in the diagnosis and treatment planning may have fatally affected the mother-foetus integrity. Hence the diagnosis, planning & execution of the same revolves not just around treating the infection but also ensuring complete maternal-foetal well-being with minimal complications including proper counselling to the patient and attendees.

Conclusion

The case report demonstrates the extent of a simple odontogenic infection, the extent of which can be curbed if treated at the earliest and with the proper course of management with the importance of dental treatment in pregnancy. Every mother should be closely examined by her dentist before and during pregnancy to avoid any deleterious complications for herself and the foetus.

Although the treatment of the same in a hemodynamically stable patient would have been far simple, it was the physiologic status of the patient that proved to be the point of hesitation, which is the basis of the case report. It is aimed to encourage not only Dental surgeons but also Obstetricians and Gynaecologists to make sure timely evaluations are done for the mother along with educating the family regarding the importance of the same.

Keywords: Odontogenic infection, pregnancy, wisdom tooth removal.

References

1.Lawrenz DR, Whitley BD, Helfrick JF. Considerations in the management of maxillofacial infections in the pregnant patient. J Oral Maxillofac Surg. 1996; https://doi.org/10.1016/S0278-2391(96)90125-1

2.Topazian RG, Goldberg MH, Hupp JR. Oral and maxillofacial infections. 4th ed. W.B. Saunders, Philadelphia.

3.Tocaciu S, Robinson BW, Sambrook PJ. Severe odontogenic infection in pregnancy: a timely reminder. Aust Dent J. 2016; https://doi.org/10.1111/adj.12463.

4.Akhter T, Jabeen U, Israr Ul Khaliq. Pregnancy complicated by odontogenic facial space infection; A study. JMCR. 2016; https://dx.doi.org/10.18535/jmscr/v4i11.10.

5.Kurien S, Kattimani VS, Sriram RR. Management of pregnant patient in dentistry. J Int Oral Health. 2013; 5(1):88-97.

6.Torre DD, Burtscher D, Hofer D. Odontogenic deep neck space infection as life threatening condition in pregnancy. Aust Dent J. 2014; doi: 10.1111/adj.12189.

7.Maerlender JR, Krishna R, Robinson V. Oral health during pregnancy: Current research. J Womens Health. 2005; http://doi.org/10.1089/jwh.2005.14.880.

8.Giglio JA, Lanni SM, Laskin DM. Oral health care for the pregnant patient. www.cda-adc.ca/jcda. 2009, Vol. 75, No. 1.

9.Turner M, Aziz SR. Management of the pregnant oral and maxillofacial surgery patient. J Oral Maxillofac Surg; 2002;60:147988.

10.Flynn RT, Susarla SM. Oral and maxillofacial surgery for pregnant patients. J Oral M.axillofac Surg. 2007; 19: 207-21.