



LUDWIG'S ANGINA IN PREGNANCY-A RARE CASE REPORT

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ABSTRACT

Ludwig's angina is a very rare and life threatening condition in pregnancy because pregnancy as such is an immunosuppressive state and very few case studies has been reported so far. We present a case report of a 26 years old patient with 20 weeks of gestation admitted with swelling of neck and left side of cheek associated with difficulty in swallowing and opening of mouth, with h/o tooth extraction 9 months back, consistent with Ludwig's angina. Hence under proper antibiotic coverage and surgical incision and drainage, we successfully relieved her symptoms and under regular followup, she delivered an alive boy baby at 37 weeks of gestation. Postnatal period was uneventful.

KEYWORDS:Pregnancy, Ludwig's angina ,Odontogenic infections.



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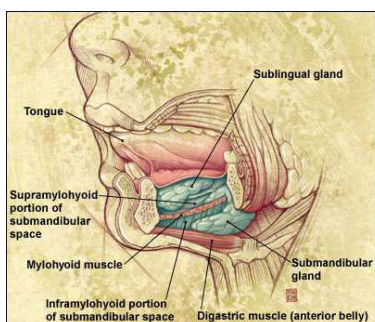
INTRODUCTION

Ludwig's angina is a potentially lethal condition causing cellulitis of floor of the mouth in which the odontogenic infection spreads to the submandibular, sublingual and submental spaces¹ and in pregnancy it is a very rare and life threatening condition because of septicemia and asphyxia. Since pregnancy as such is an immuno compromised state due to weakened adaptive immune responses, the risk of infection is high and gets worsened once infected. The odontogenic infection is due to the bacteria present in oral flora, in particular mixed infection by both aerobic and anaerobic bacteria are common². Hence the patients usually present with dysphagia, odynophagia, drooling, tense brawny induration and trismus. Finally it results in airway obstruction due to swelling of the neck, glottis edema, pharyngeal edema and elevation of tongue³. Airway management, antibiotic therapy and surgical incision and drainage are the main stay of treatment. This case also highlights a pregnant woman with 5 months of amenorrhea diagnosed to have Ludwig's angina and a timely management with proper antibiotic coverage and surgical incision and drainage led to drastic improvement of the patient's general condition and maintenance of pregnancy and fetal viability.

CASE REPORT

26 years old primi with h/o 5 months of amenorrhea came with complaints of swelling over left side of cheek and neck with difficulty in opening mouth and swallowing for past 3 days. Patient gave h/o tooth extraction 9 months back. On local examination of neck there was a diffuse swelling of 6x4cms in the left submandibular region extending into sub mental, infra auricular and parotid region of left side. The swelling was warm with mild tenderness associated with trismus. On examination of throat there was a pus point opposite to the left lower second molar tooth. Floor of the mouth was normal. Hence dental and ENT opinion were obtained and diagnosed to be ludwig's angina. Patient was started on broad spectrum IV antibiotics and planned for incision and drainage and pus was drained and pus sent for culture and sensitivity, report showed staphylococcus aureus growth. After procedure the swelling reduced and the patient's general condition was improved and she was discharged. Patient was under regular followup and at 37 weeks of gestation patient came with premature rupture of membranes, under proper antibiotic coverage she went into spontaneous labour and delivered an alive, boy baby with good apgar. Postnatal period was uneventful.

DISCUSSION



In Ludwig's angina the infection usually starts with a periapical dental abscess of second or third mandibular molar and infection spreads

deep through mylohyoid muscles to reach the submandibular space and once infected special attention is to be taken to prevent airway

obstruction⁴. Hence as described before, pregnancy as such is an immunocompromised state with decreased neutrophil chemotaxis, cell mediated immunity and NK cell activity^{5,6}. Also due to the hormonal changes in pregnancy, the maternal gingival tissues become much more sensitive and hence even the soft plaques which accumulates forms as hard calculus deposits providing an environment which will be suitable for bacterial growth, particularly gram negative anaerobic bacteria resulting in Ludwig's angina. This causes inflammatory reactions ending up in pre-term delivery, PROM and low birth weight babies. Studies show that elective tracheostomy under local anaesthesia is the treatment of choice in Ludwig's angina⁸. Surgical decompression can be made with a cervical plexus block and a thorough incision and drainage with transection of mylohyoid, if

needed, can be done to relieve airway obstruction. Superficial cervical block with concomitant mandibular nerve block also have a greater success rate in patients with submandibular and submental abscesses⁹. Hence airway maintenance, antibiotic therapy and surgical incision and drainage are the first line management in a case of Ludwig's angina^{1,10,11,12}.

CONCLUSION

Thus Ludwig's angina is a life threatening condition and under proper treatment of securing the airway and treating the infection after surgical decompression of the swelling, we can save the life of the patient with good outcome.

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