Facial Cellulitis: A Case Report

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Abstract: Cellulitis is a severe inflammation of dermis and hypodermis sparing the facial planes due to an acute inflammation. Facial involvement has a high risk of complications due to abundance of sensitive anatomic structures. A typical case of facial cellulitis secondary to odontogenic infection was successfully treated by conservative surgery and antibiotic treatment with preservation of jaw integrity.

Key words: Facial Cellulitis, Head and Neck Infections, Incision and Drainage.

INTRODUCTION

Cellulitis is a diffuse inflammation of soft tissues which is not circumscribed to confined to one area and tends to spread through tissue spaces and along the facial planes (1). The main causative organisms are streptococcus pyogenes though a variety of aerobic and anaerobic bacteria may produce it (2,3,4,5). These bacteria produces significant amount of streptokinase, hyaluronidase and fibrinolysins which breakdown or dissolves hyaluronic acid. Cellulitis of neck and face most commonly results from dental infections either as sequel of an apical abscess or osteomyelitis or following periodontal infections (6). Cellulitis is normally present in the soft tissue adjacent to the offending tooth. Pain, fever and lymphadenopathy are commonly seen. Typically the swollen area is diffuse, firm red and warm (7). Without appropriate therapy spread of infection possibly may result in cavernous sinus thrombosis, suppurative mediastenitis, airway obstruction (8) or systemic bacteremia. Immunosuppression, Diabetes and malignancy are the major risk factors. The focus of infection should be resolved and antibiotics are administered; if the infection localizes, it should be drained.

CASE REPORT

A 30 year old male patient presented with pain in right lower back tooth along with swelling of right side of face since 1 month. 2 months back the patient was treated by a General Surgeon. The patient also complains of general malaise and a low grade fever.

Extraoral examination revealed a diffuse, indurated and non fluctuant swelling in right side of face extending superiorly from infraorbital region to lower border of mandible, anteriorly from angle of mouth to ala tragus line. Multiple incision marks were present in right cheek. (Fig.1) Right submandibular lymph nodes were tender on palpation. Intraorally the maxillary right vestibule was obliterated and a draining fistula was noted on the buccal aspect of mandibular 3rd molar. Orthopantomogram revealed carious permanent mandibular second and third molar. Under local anaesthesia, 47 and 48 were surgically extracted. Incision was given at the most dependent part. Hilton's sinus forcep was introduced to open up the tissue spaces and the pus was drained. Approximately 2 – 3 ml of purulent exudates was collected for bacterial culture and sensitivity testing. The wound was irrigated with normal saline and a separate tube drain was placed and secured with silk suture. The patient remained on oral dose of antibiotics for 3 days. The post operative period was uneventful. (Fig.3)

DISCUSSION

Facial cellulitis and deep infections of neck are dangerous because of their normal tendency to cause edema, distortion and obstruction of airway (9). In the early stages of disease, patient may be managed with observation and antibiotics. Advanced infection requires the surgical drainage and proper antibiotic therapy (10). Infections arising in the maxilla perforate the outer cortical plate of bone above the buccinators attachment and cause swelling initially of upper half of face (11). The diffuse spread however, soon involves entire facial area. Infections in the mandible perforate the outer cortical plate below the buccinators attachment and cause swelling of lower half of face (12).

It is important to recognize cellulitis in the earlier stages of disease, when it is easier to manage. In managing cellulitis it is important to locate and treat source of infection, although this is sometimes difficult. To avoid the further spread of infection or solidification of abscess, the patient should be advised not to massage the affected area with any medication. Although this condition is extremely serious, the resolution is usually prompt with adequate treatment, and untoward sequelae are uncommon. Thus early recognition and correct treatment with broad spectrum antibiotics is mandatory to avoid life threatening complications.

CONCLUSION

From the case, it can be concluded that facial cellulitis should be treated with utmost care with adequate knowledge of the disease and correct treatment is needed to avoid life
threatening complications.

REFERENCES
LIST OF PHOTOGRAPHS

Fig 1: Pre Operative Intra oral Photograph

Fig 2: OPG revealed carious 47 horizontally impacted 48.

Fig 3: Post Operative Photograph