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CASE REPORT - LUDWIG'S ANGINA

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ABSTRACT:

Luwig's angina was first described by Willhelm fredreich von Ludwig in 1836, it is rapidly spreading cellulitis involving the bilateral submandibular, submental, sublingual regions. This article presents a case of spreading cellulitis, a patient of 38 years had reported to Bhabha OMDR department regarding pain in right and left lower back region since 10 days and difficulty in swallowing and thereafter swelling appear and spread to submandibular, submental, sublingual spaces bilaterally.

I. INTRODUCTION

It is a rapidly spreading cellulitis involving bilateral submandibular and sublingual spaces.

ETIOLOGY:

1) Odontogenic: usually starts from a periodical, pericoronal or periodontal tissues of a lower third molar tooth. Infection from this tooth generally spreads to the submandibular space, since the roots extend below the mylohyoid line.
2) Traumatic injuries and infected lacerations.
3) Infective conditions such as osteomyelitis may have an acute exacerbations and manifest in the form of Ludwig's angina.
4) Pathological condition such as cyst and tumours in the third molar region may get infected and spread in its way.

PATHOLOGY:

Infection from a third molar reaches the submandibular spaces. From here it spread the submandibular salivary gland above the mylohyoid line muscle to reach the sublingual space.

Submental space gets involved by the lymphatics. Since it is a cellulitis and not an abscess, it does not spread along the fascial planes and tissue spaces.

After involving the three spaces the cellulitis spreads within the tongue posteriorly along the fascial planes and tissue spaces.

MICROBIOLOGY:

The cellulitis is caused by streptococci.

These organisms can produce rapidly spreading infections.

This is because they produce by hyaluronidase and fibrinolysins. These enzymes cause an extensive destruction of hyaluronic acid and fibrin. This help in the spread of the tissues.

- Predisposing factors
- Patients suffering from certain systemic conditions may be predisposed to developing infections:
  1) AIDS
  2) Diabetics
  3) patients with poor oral hygiene
  4) patients on immunosuppressant drugs or in immunocompromised conditions
- Oral and maxillofacial infections are commonly seen by dentists. Since in most of these cases, teeth are the source of infection, they are referred to as odontogenic infections.
- The patient may present to us with a large swelling, difficulty in breathing, opening the mouth and to understand situation, the various stages infections go through.
- Stage I: Most infections are odontogenic in origin which means that they may arise from either a periapical infection, or a periodontal infection, pericoronal infection of a tooth. At this stage the patient may be asymptomatic or may complain of mild occasional discomfort in the involved tooth.

- Stage II: From here the organism then begin to spread to the tissues surrounding the tooth either to the periapical region or periodontal region. In this way it enters the medullary portion of bone. At this, it is confined within the bone. The patient complains of severe pain as the pus and infected tissue is restricted within relatively unyielding bony tissue with no place for escape. The affected tooth is very tender on percussion and feels slightly elevated in the socket. The patient cannot chew from that side. Most patients seek treatment at this stage.

II. EXTRAORAL FEATURES

Hard to firm brawny board like, indurated swelling extending from bilateral submandibular, submental region, anterior part of the neck up to the clavicle.

III. INTRAORAL FEATURES

- There is trismus.
- Floor of the mouth is raised.
- Tongue appears swollen and rise upwards towards the palate and posteriorly causing further airway compromise.

IV. CASE REPORT

A patient name Jhanaj Bee 38 years had reported to Bhabha OMDR department regarding pain in right and left lower back region since 10 days and difficulty in swallowing and thereafter swelling appear and spread to submandibular, submental, sublingual spaces bilaterally. Vital signs were as follows:

Blood pressure was 104/72 mm hg and temperature 99 degree Fahrenheit; pulse rate was 96 beats/minute. After admission, intravenous antibiotic and saline drip therapy started followed by basic life support, she was taken to the pcds to the surgery department.

V. MANAGEMENT OF LUDWIG'S ANGINA

- The airway maintenance.
- Parenteral antibiotics.
- Surgical decompression of the tissues.
- Hydration of the patient.
- Removal of the cause.

REFERENCES

[1] Bauer WH. Maxillary sinusitis of dental origin. American Journal of Orthodontics and Oral Surgery, 29.
[2] Dingman RO. The management of acute infections of the face and jaw. American Journal of Orthodontics and Oral Surgery, 25:588, 1941.
[3] Doherty J. Ludwig Angina. The Journal of the American Dental Association, 28:588, 1941.
[4] Dent. Asdoc, Elliot SD. Bacteremia and oral sepsis.
[5] Ke HA. Cellulitus. American Journal of Orthodontics and Oral Surgery, 25:172, 1939.