

A Clinical Study of Deep Neck Abscesses

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ABSTRACT

Background: Deep neck space infection is common clinical entity seen in ENT practice. Early diagnosis and adequate treatment can help in reducing the morbidity and mortality associated with the disease. **Methods:** This study was conducted in the department of ENT and Head and Neck Surgery, SMGS Hospital, Government Medical College Jammu for a period of 2 years w. e.f August 2017 to August 2019. 50 patients presenting with symptoms of throat pain, dysphagia, odynophagia, fever, neck swelling, trismus, halitosis and change in voice were included. Only clinically and radiologically confirmed cases of deep neck space infections of all age groups and both the sexes were included in the study. Needle aspiration or incision and drainage was done at the earliest stage in majority of patients. Pus was sent for culture and sensitivity analysis. All the patients were started on antibiotics, supportive therapy in the form of intravenous fluids, analgesics, antipyretics, mouthwashes were given. **Results:** Out of 50 patients, highest incidence was noted in 31-40 years age group accounting for 24% patients with male: female ratio of 1.27: 1. In the present study the most common presenting complaint was painful swallowing (odynophagia) seen in 48(96%) patients followed by fever seen in 46(92%) patients, trismus, pain throat, neck swelling, neck pain, difficulty in breathing., dental pain, bad breath. The most common cause was dental infection in 24(48%) patients followed by salivary gland infection in 11(22%) patients, recurrent tonsillitis was seen in 9(18%) patients. The most common infection was ludwig's angina seen in 28 patients (56%) patients followed by peritonsillar abscess seen in 10(20%) patients. **Conclusion:** Since most of the infections are dental in origin, patient education regarding oral and dental hygiene needs to be stressed.

Keywords: Ludwigs angina, dental, deep neck space.

INTRODUCTION

Deep neck space infections include infections involving para-pharyngeal, retropharyngeal and submandibular spaces. Deep neck space infections usually represent the overgrowth of the normal flora; with most infections being polymicrobial.^[1] Deep neck infections spread along the fascial planes and spaces of head and neck region. Deep neck space infections are dreadful infections and are still a potentially life threatening condition with considerable mortality even in this era of modern medicine. They are commonly seen in low socioeconomic group with poor oral hygiene and nutritional disorders. This is due to delayed presentation of the patient to a tertiary centre and frequent association with fatal complications as a result of close proximity to aerodigestive tract and major vasculature of neck. However, when not

diagnosed and treated appropriately, these infections progress rapidly and are associated with high morbidity and mortality.^[2,3]

The management protocols of these infections have not well been defined and are often challenging due to proximity of vital neck structures. Decision making between only medical management verses surgical and medical management are very important in their management.^[4]

MATERIALS AND METHODS

This study was conducted in the department of ENT and Head and Neck Surgery, SMGS Hospital, Government Medical College Jammu for a period of 2 years w. e.f August 2017 to August 2019. 50 patients were included in the study

Patients presenting with symptoms of throat pain, dysphagia, odynophagia, fever, neck swelling, trismus, halitosis and change in voice. After proper history taking and detailed general physical examination, local examination was performed to note the type of abscess and cause of abscess. In cases where clinical diagnosis was uncertain, radiological investigations were done to confirm the diagnosis.

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All the patients were started on antibiotics, supportive therapy in the form of intravenous fluids, analgesics, antipyretics, mouthwashes were given.

RESULTS

100 patients were included in the present study. Different clinical and demographical variables were studied. The observations and results are as follows.

Age and sex distribution

The youngest patient was 5 years old and oldest was 72 years old. The highest incidence was noted in 31-40 years age group accounting for 24% patients. Out of 50 patients, 28 were male patients and 22 were females with male: female ratio of 1.27: 1. [Figure 1, Figure 2]

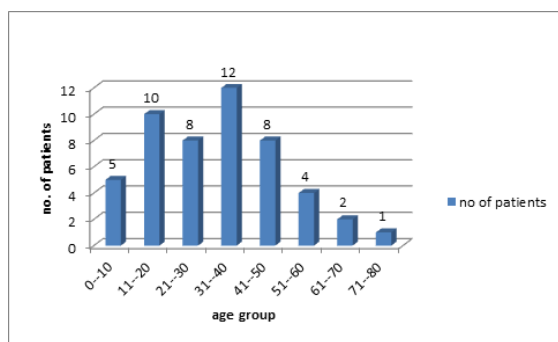


Figure 1: Age wise distribution of patients.

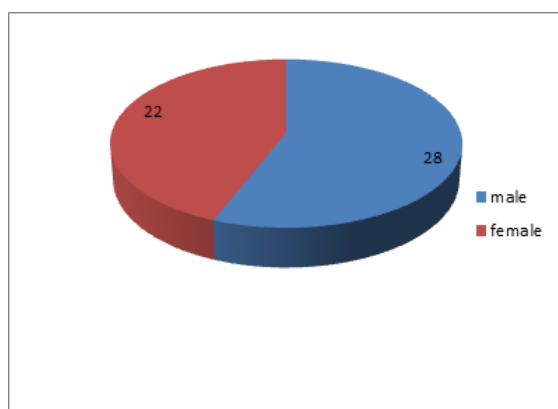


Figure 2: Gender wise distribution of patients.

Chief complaints

In the present study the most common presenting complaint was painful swallowing (odynophagia) seen in 48(96%) patients followed by fever seen in 46(92%) patients, trismus, pain throat, neck swelling, neck pain, difficulty in breathing, dental pain, bad breath.[Figure 3]. 15(30%) patients had history of diabetes mellitus and were on erratic treatment. 2(4%) patients were on treatment for

hypertension and 7(14%) patients had coexistent diabetes mellitus and hypertension.

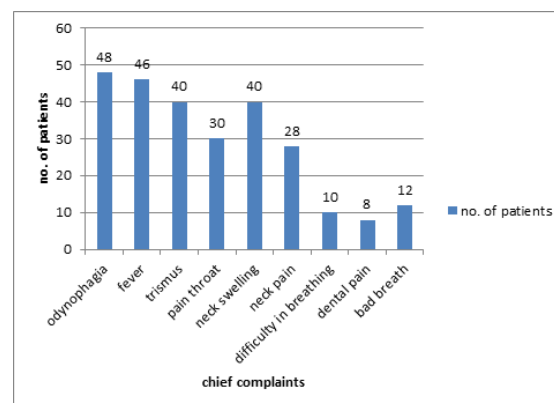


Figure 3: Distribution of cases according to presenting complaints

Distribution of patients according to etiology.

Based on clinical and radiological data cause for infection was found in 46 out of 50 patients. The most common cause was dental infection in 24(48%) patients followed by salivary gland infection in 11(22%) patients, recurrent tonsillitis was seen in 9(18%) patients. Cause was unknown in 6(12%) patients. [Figure 4]

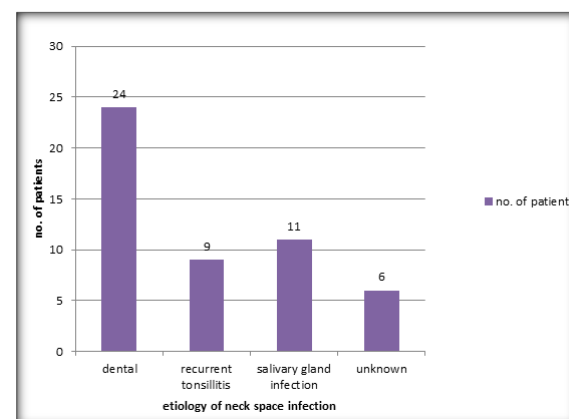


Figure 4: Distribution of patients according to etiology

Distribution of patients according to site of abscess
Based on clinical and radiological data the most common infection was ludwig's angina seen in 28 patients (56%) patients followed by peritonsillar abscess seen in 10(20%) patients. Other sites were parapharyngeal space, submental space, retropharyngeal space and parotid space. Their distribution is shown in [Figure 4]. 40(80%) patients showed involvement of single space whereas 10 (20%) patients had multiple space involvement.

Diagnosis of abscess

Diagnosis of abscess was made on history and clinical findings and examination in 30 (60%) patients whereas ultrasound, X Ray soft tissue neck and computed tomography was used in rest 20(40%) cases.

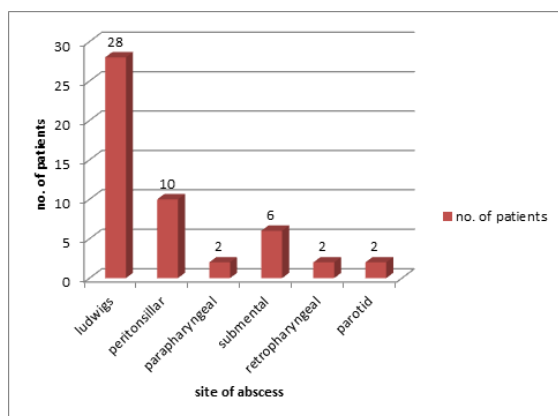


Figure 5: Site of abscess

Treatment

Out of 50 cases, 40(80%) were treated by incision drainage. All the patients were on antibiotics, antipyretics, analgesics, intravenous fluids and mouth washes.

DISCUSSION

Extensive use of antibiotics has reduced the incidence of Deep neck space infections. In spite of that, it is still a fairly common entity.

In our study, the youngest patient was 5 years old and oldest was 72 years old. The highest incidence was noted in 31-40 years age group accounting for 24% patients which correlates with the study by Parhiscar and Meher.^[5,6] Out of 50 patients, 28 were male patients and 22 were females with male: female ratio of 1.27: 1 which is consistent with the study by Meher.^[6]

In the present study the most common presenting complaint was painful swallowing (odynophagia) seen in 48(96%) patients followed by fever seen in 46(92%) patients, trismus, pain throat, neck swelling, neck pain, difficulty in breathing, dental pain, bad breath. These findings are consistent with the studies by Bakir,^[7] Marioni,^[8] and Meher.^[6] Based on clinical and radiological data cause for infection was found in 46 out of 50 patients.

The most common cause in our study was dental infection in 24(48%) patients followed by salivary gland infection in 11(22%) patients, recurrent tonsillitis was seen in 9(18%) patients. Cause was unknown in 6(12%) patients. These findings are consistent with the findings by Marioni, Kataria and Zamiri.^[8-10]

Based on clinical and radiological data the most common infection was Ludwig's angina seen in 28 patients (56%) patients followed by peritonsillar abscess seen in 10(20%) patients. Other sites were parapharyngeal space, submental space, retropharyngeal space and parotid space. These findings are consistent with the findings by Kataria,^[9] Zamiri,^[10] and Meher.^[6]

Out of 50 cases, 40(80%) were treated by incision drainage. All the patients were on antibiotics, antipyretics, analgesics, intravenous fluids and mouth washes. These findings are similar to findings by Kamath,^[4] Parhiscar,^[5] and Kataria.^[9]

CONCLUSION

Deep neck space infection is still challenging disease in otorhinolaryngology. Early surgical drainage remains the method of choice and conservative management in those cases that have minimal cellulitis. Since most of the deep neck space infections are odontogenic in origin, maintaining oral hygiene is important for their prevention.

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