

# A Study on Incidence Etiopathology Clinical Presentation and Outcome of Retropharyngeal Abscess

Pinpo Teron<sup>1</sup>, Kalpana Sharma<sup>2</sup>, SM. Maidul Islam<sup>3</sup>, Pradip Kumar Tiwari<sup>4</sup>

## ABSTRACT

**Introduction:** A retropharyngeal space is posterior to the pharynx bounded by the buccopharyngeal fascia anteriorly, the prevertebral fascia posteriorly and carotid sheath laterally<sup>1</sup>. It extends superiorly to the base of the skull and inferiorly to the mediastinum. A retropharyngeal abscess occur mostly as a complication of foreign body in the neck. Aims and objectives: a) To evaluate the prevalence, etiopathology and clinical presentations of acute retropharyngeal abscess. b) To look for the treatment outcome

**Material and methods:** Total ten cases of retropharyngeal abscess were attended in the ENT department of GMCH during six month period July 2019 to December 2019 .

**Results:** Local trauma by foreign body ingestion was the etiology in five patients. The presenting symptoms were odynophagia, trismus and clinical examination show bulging of the posterior wall of oropharynx. The radiography of soft tissue neck showed prevertebral thickening in all cases

**Conclusion :** In adult retropharyngeal abscess is common with foreign body fish bone and meat bone and contribute a serious emergency

**Keywords:** Etiopathology, Clinical Presentation, Outcome of Retropharyngeal Abscess

## INTRODUCTION

Retropharyngeal abscess is an infection of one of the deep spaces of the neck. The retropharyngeal space is posterior to pharynx bounded by the buccopharyngeal fascia anteriorly, the prevertebral fascia posteriorly and carotid sheath laterally which extends superiorly to the base of the skull and inferiorly to the mediastinum.<sup>1</sup> An abscess in this location is an immediate life-threatening emergency with potential for airway compromise and other catastrophic complications. In adult retropharyngeal abscess are rare. It can occur as a results of local trauma such as foreign body ingestion (fish bone, chicken bone) or in the particular context of an associate disease. Acute retropharyngeal abscess is common in children below 3 years. It results from suppurative of retropharyngeal lymph nodes.

### Aims and objectives

- To evaluate the prevalence, etiopathology and clinical presentations of acute retropharyngeal abscess.
- To look for the treatment outcome.

## MATERIAL AND METHODS

This is a prospective study of ten patients who were admitted and treated for retropharyngeal abscess in the department of otorhinolaryngology GMCH from July 2019 to December

2019, This study included all parameters including age,gender,common presentations causative organisms, pus culture and sensitivity imagingstudies, type of intervention treatment and management analysis.

The age range of the ten cases were between 4 month to 76 years. (Threemale seven female) Foreign body ingestion were identified in six casestwo cases denture.

All ten patients presentedwith odynophagia and swelling in neck, one patient present with noisy breathing and respiratory difficulty .Clinical examination show bulging of the post wall of the oropharynx in five patients.Neurological examination was normal. Radiography of the cervical spine show prevertebral thickening in all cases. Cervical CT show an isolated retropharyngeal abscess in one patient. Biological assessment revealed type 2 diabetes mellitus in two cases and total count increase in two patients.

Intra oral puncture and drainage wasdone under local anaesthesia in two cases and one under general anaesthesia. Two organisms were identified by culture klebsiella pneumoniae and staphylococcus aureus which was sensitive to our primary treatment,one patient was associated with fever which was sensitive to our primary antibiotic treatment. As soon as admitted we started IV antibiotic therapy ceftriaxone, amikacin and metronidazole. Total duration of antibiotic was seven days on average.

Emergency tracheostomy was done in one patient to secure airway.The surgical draining was also performed in the case of diabetis patient who required also correction of hypoglycaemia.

The length of hospital stay varied between 6 to 15 days with an average 9 days. All the patients were followed up for one to three months without evidence of recurrence.

## RESULTS

In our study the patient with diabetes presented with fever and odynophagia with bulging of the posterior pharyngeal wall.( TABLE 1)

<sup>1</sup>Associate Professor, <sup>2</sup>Professor, <sup>3</sup>Resident, <sup>4</sup>Consultant, Department of Otolaryngology and Head and Neck Surgery, Guwahati Medical College and Hospital, Guwahati, Assam, India

**Corresponding author:** Pradip Kumar Tiwari, Consultant, Department of Otolaryngology and Head and Neck Surgery, Central Hospital, Coal India Limited, Dhanbad, Jharkhand, India

**How to cite this article:** Teron P, Sharma K, Maidul Islam SM, Pradip Kumar Tiwari PK. A study on incidence etiopathology clinical presentation and outcome of retropharyngeal abscess. International Journal of Contemporary Medical Research 2022;9(2):B7-B9.

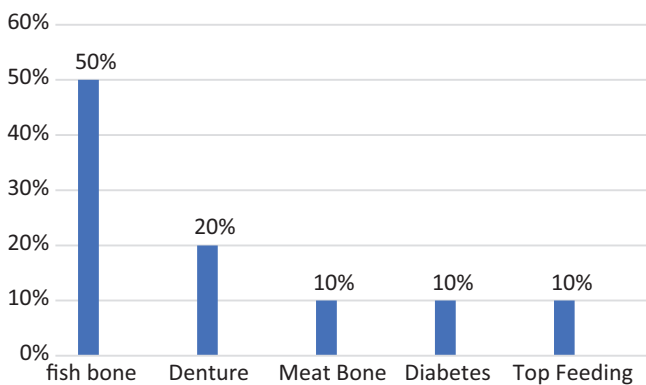


Patient	Age	sex	etiology	Morbidity
Case 1	60	M	denture	-
Case 2	60	F	-	Diabetes
Case 3	13	F	Fish bone	-
Case 4	50	F	Fish bone	-
Case 5	4 month	M	Top feeding	-
Case 6	26	F	Fish Bone	-
Case 7	30	F	Fish bone	-
Case 8	76	M	Fish bone	diabetes
Case 9	46	F	Denture	-
Case 10	20	F	Meat bone	-

**Table-1:**

Patient	Antibiotic	Puncture	surgical procedure
Case 1	+	-	Rigid esophagoscopy
Case 2	+	+	-
Case 3	+	+ ,under GA	tracheostomy
Case 4	+	-	Rigid esophagoscopy
Case5	+	+	-
Case 6	+	-	Rigid esophagoscopy
Case 7	+	-	Rigid esophagoscopy
Case 8	+	-	Rigid esophagoscopy
Case 9	+	-	Rigid esophagoscopy
Case 10	+	-	Rigid esophagoscopy

**Table-2 (Establish Treatment)**



**Figure-1:**

Epidemiological data and suspected etiology CT contribute greatly to the diagnosis but it has limitations in differentiating abscess from cellulitis of the retropharyngeal space . The plain radiograph in lateral view is very specific when it show air in the retropharyngeal space.

**DISCUSSION**

Retropharyngeal abscess are deep neck space infection. It is an immediate life threatening emergency with potential for airway compromise and other catastrophic complication. The retropharyngeal space is posterior to pharynx bounded by the buccopharyngeal fascia anteriorly, the prevertebral fascia posteriorly and carotid sheath laterally which extends superiorly to the base of the skull and inferiorly to the mediastinum.<sup>1</sup>

Abscess in this space can be caused by many organism such as aerobic organism beta haemolytic streptococci and staphylococcus anaerobic organism like

Bacteroides, klebsiella pneumoniae<sup>2</sup>.

The high mortality rate associate with retropharyngeal abscess is due to associated airway obstruction, mediastinitis, aspiration pneumonia, jugular venous thrombosis and sepsis .Unlike children, adult retropharyngeal abscess due to nasal or pharyngeal and dental infections are rare and in our study the principal etiology was trauma due to fishbone ingestion.<sup>3</sup> The principal symptoms in adults are sore throat fever dysphagia odynophagia neck pain and dyspnea. Patient with retropharyngeal abscess may present with airway obstruction. The most common physical presentation is posterior pharyngeal wall, bulging neck rigidity, cervical lymphadenopathy.<sup>4</sup>

It is well known that the esophagus has three areas of physiological narrowing: the upper esophageal sphincter, eminence of the aortic arch or the left main bronchus, and the lower esophageal sphincter. In addition, an anatomical pathology, such as stenosis, will create another site. The upper esophageal sphincter is the most common lodging site of FFB<sup>5,6,7,8,9,10</sup>

**CONCLUSION**

In adult retropharyngeal abscess is common with foreign body fish bone and meat bone and contribute a serious emergency. Incidence is higher in female in comparison to male and the age group is most common between 20 to 50 years of age,. Most common presenting feature of the patient is posterior pharyngeal wall swelling, odynophagia and trismus. The diagnosis is based as the clinical and radiological picture. Comorbidities should be apprehensive management of this situation which based on antibiotic and surgical intervention. In children it is due to suppuration of retropharyngeal lymph node. Securing airway is most important for management. Tracheostomy may be needed some time. If it is done under general anaesthesia the anaesthesiologist should be advised not to rupture the abscess to prevent of aspiration.

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**Source of Support:** Nil; **Conflict of Interest:** None

**Submitted:** 17-11-2021; **Accepted:** 15-12-2021; **Published:** 28-02-2022