

# High Dose PPI with H2 Blocker for Long Term Remission of Symptoms in Cervical Inlet Patch

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## Abstract

Cervical inlet patch is an ectopic gastric mucosa in upper end of oesophagus. They are generally asymptomatic, few may present with oropharyngeal symptoms due to acid secretion from the patch like odynophagia, dysphagia, globus sensation, cough etc. Here we present a symptomatic case with complains of odynophagia, dysphagia and globus sensation who responded remarkably with the acid suppression. High dose PPI with H2 blocker was prescribed for 8 weeks which resulted in long term remission of symptoms. Patient was followed for 5 years. There were no recurrence of symptoms neither developed any other complications of acid secretion.

**Keywords:** Cervical inlet patch; Ectopic gastric mucosa; Globus sensations; PPI

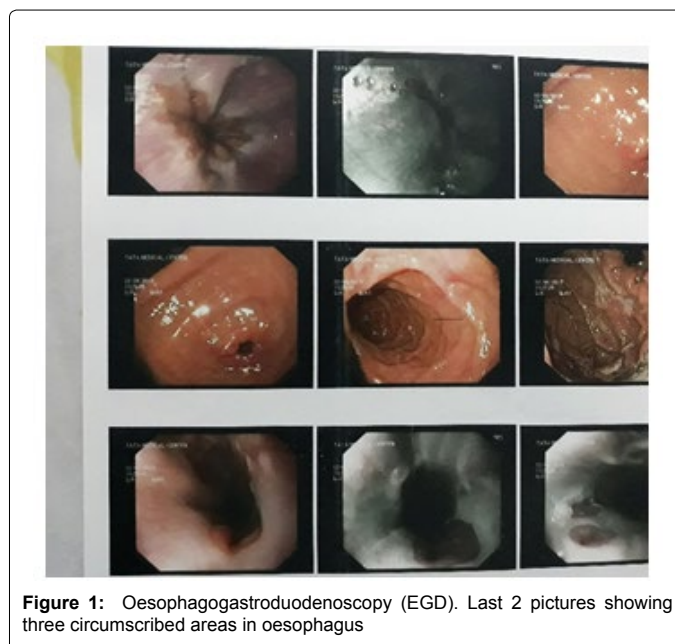
## Introduction

Presence of ectopic gastric mucosa in the cervical oesophagus is known as cervical inlet patch, also called heterotropic gastric mucosa of the proximal oesophagus (HGMPE) [1]. They are often found incidentally at upper GI endoscopy and have prevalence of 0.18% to 14% [2]. Most patients are asymptomatic. Due to its location in the oesophagus CIP is often missed. However, some patients present with nonspecific oropharyngeal symptoms like odynophagia, Globus sensation, dysphagia, throat irritation, cough, etc., related to acid secretion from the patch [1]. PPI has been advised in symptomatic patients for acid suppression but there is no clear guidelines regarding the dose and duration.. Herein we present a case of cervical inlet patch that was symptomatic from last 6 months. He was prescribed high dose PPI with H2 blocker for 8 weeks and followed. There was remarkable improvement in symptoms with just 8 weeks of treatment without recurrence or any other complications. Patient is in follow up since last five years. Till date no recurrence of symptoms and patient has not developed any complication of acid secretion.

## Case Report

A 42-year-old man visited OPD with complains of intermittent throat pain, odynophagia, Globus and dysphagia from last six months. Except for slight congestion in the pharyngeal wall there were no other significant findings. He was prescribed oral antibiotics for 5 days. After a week patient visited again as there was no relief. He was referred to ENT specialist where indirect laryngoscopy did not reveal the cause of the throat symptoms. Provisional diagnosis of LPR was made. Patient was prescribed omeprazole 20 mg OD with domperidone 30 mg along with LSM and asked to review after 2 weeks. There was no significant improvement in symptoms after 2 weeks. Apprehensive patient was sent to the department of gastroenterology to rule out reflux. Oesophagogastroduodenoscopy (EGD) was performed to determine the cause. There was no evidence of reflux or hiatus hernia. GEJ (Gastroesophageal junction), Stomach and Duodenum were normal but revealed 3 small well circumscribed areas in the upper oesophagus just beyond the upper oesophageal sphincter with Barrett's like mucosa on NBI (Figure 1). Biopsies were taken from the upper oesophageal circular areas.

Histologic sections showed fragments of normal oesophageal mucosa with stratified squamous epithelium and adjacent gastric



**Figure 1:** Oesophagogastroduodenoscopy (EGD). Last 2 pictures showing three circumscribed areas in oesophagus

oxyntic mucosa. Intestinal metaplasia or H pylori like organism were not seen in the oxyntic mucosa. Diagnosis was consistent with heterotropic gastric mucosa/cervical inlet patch (Figure 2).

Patient was started omeprazole 40 mg BD along with ranitidine 150 mg HS. After about a week patient started getting some relief. He was advised to continue this regime for total of 8 weeks. Patient was asymptomatic after 8 weeks of treatment. He was on regular follow up for 5 years. After 5 years repeat endoscopy was done which didn't show

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Specimen : TISSUE (SE/13/027977) Lab. Ref. No. : HT/13/001329 Received On : 02/04/2013 15:46:14

**SMALL BIOPSIES**

**SPECIMEN**

Oesophagus, just distal to the upper oesophageal sphincter-Upper GI endoscopic biopsy:

**DIAGNOSIS**

**Consistent with Heterotopic Gastric Mucosa / Cervical Inlet Patch.**

Negative for malignancy.

Please see comment.

**COMMENTS**

Histologic sections show fragments of normal esophageal mucosa with stratified squamous epithelium and adjacent gastric oxyntic mucosa. Intestinal metaplasia or H pylori like organisms are not seen in the oxyntic mucosa.

Endoscopic findings: There are 3 small well circumscribed areas in the upper esophagus just beyond the upper esophageal sphincter with barretts like mucosa. Normal gastroesophageal junction.

The endoscopic findings and morphological features are most consistent with Heterotopic gastric mucosa of the upper esophagus / Cervical Inlet Patch.

**GROSS DESCRIPTION**

Received in formalin labelled with patient name, MR No. and "Esophageal biopsy" are 3 tiny grey white tissue bits measuring from 0.2 to 0.1 cm, submitted entirely in one cassette HT/13/1329.

--: End of Report :-

**Figure 2:** Diagnosis was consistent with heterotopic gastric mucosa / cervical inlet patch

any progression. Thus with 8 weeks treatment with combination of PPI and H2 blocker patient got long term relief, also there were no other complications related to excess secretion of acid from cervical inlet patch.

## Discussion

The presence of heterotopic gastric mucosa was first described long back from autopsy examination. The other areas for heterotopic gastric mucosa apart from oesophagus are duodenum, jejunum, cystic duct, gallbladder, rectum and anus. IP (Inlet patch) occurs most frequently in the post cricoid portion of the oesophagus at or just below the upper Oesophageal sphincter. Development of cervical inlet patch is unknown and is based on different theories. First it is widely considered as a congenital anomaly. Since during development of the oesophagus squamous lining replaces the columnar lining from the middle oesophagus extending in both direction which accounts for the post cricoid location of inlet patch. Second is acquired theory due to chronic acid injury as seen in Barret's Oesophagus. Third less common theory involves rupture of proximal Oesophagus retention cystic glands.

It is difficult to detect the heterotopic gastric mucosa during routine endoscopy until the endoscopist is aware of this lesion and its location. At endoscopy the lesion appears salmon-coloured, round or oval with a flat, slightly raised or depressed surface, may have heaped margins most often on the lateral or posterior wall. The lesion will be seen more often during the endoscopy while withdrawing the scope very slowly through the upper sphincter.

Final diagnosis of inlet patch is confirmed by biopsy. In the pathologic evaluation of the biopsies the most common histological type is the oxyntic or cardiac type mucosa followed by the antral mucosa [3]. The size of inlet patches is variable and may be up to 5 cm. Although single patch is detected commonly in literature, multiple patches can be found within close proximity of other patches.

IP is mostly asymptomatic and often detected incidentally during the evaluation for other gastrointestinal complaints. The clinical significance of IP is mainly acid related complications and rarely

neoplastic transformations. It is reported that most of the symptoms are mild. Few have recurrent and chronic symptoms of laryngopharyngeal reflux thus frequent visit to ENT or Gastroenterologist. In some cases, complications such as Oesophagitis, ulcer, web, stricture, fistula and neoplastic transformation mandates treatment like serial dilatation, endoscopic mucosectomy and ablation of inlet patches or surgical resection [4]. There is no consensus guideline for surveillance of IP currently because of low incidence and lack of information. Incidental finding of IP does not require any treatment unless symptoms are present but must be evaluated by histological examinations for diagnosis and to rule out malignancy. Individuals who are symptomatic may find relief with the use of proton pump inhibitors [5]. Suppression of acid secretion gives relief from symptoms. PPI have been used in symptomatic patients but there is no robust evidence regarding the dosage and duration. In this case we used combination of high dose PPI with H2 blocker for just 8 weeks for acid suppression as patient didn't get relief with normal dose of PPI. Patient is on follow up from last 5 years and didn't complain of recurrence of symptoms. Repeat endoscopy after 5 years didn't show any progression or any complications related to acid secretion.

## Conclusions

We conclude that the presence of symptoms like odynophagia, Globus, dysphagia, cough, etc., in heterotopic gastric mucosa can be treated with high dose PPI and H2 blocker combination for 8 weeks which gives long term relief. This may in fact protect mucosal changes and prevent or delay future manifestations of complications like erosion, stricture, fistula, metaplasia, dysplasia, or carcinoma in IP patients. Currently, there are still many points of IP that are not well understood like aetiology triggering factors, progression, dose and duration of drugs in symptomatic patients that are not well understood.

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