



## UPPER GASTROINTESTINAL TRACT FINDINGS AND PREVALENCE OF HELICOBACTER.PYLORII IN HIV POSITIVE PATIENTS

### Gastroenterology

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### ABSTRACT

**Background** :H.pylori affects 50% of population world wide. Whether immune deficiency plays a part in its incidence has been debated in literature. Prevalence of H. pylori in HIV positive patients were studied and compared to healthy individuals and literature published.

**AIMS:** 1. To study the prevalence of Hpylori in HIV positive patients, 2. To study the prevalence in relation to CD4+Tcell counts. 3. To compare the prevalence in HIV patients with controls and world literature. 4. To study the gastrtrc histology in HIV positives.

**MATERIALS & METHODS:** Cross sectional study . HIV patients attending Department of Medical Gastroenterology, Government Rajaji Hospital, Madurai from January 2017 to January 2018 were divided into 4 groups, depending upon their CD4+T cell counts. Detailed physical examination. blood biochemistry, & endoscopy was done: HPE & RUT for H pylori. Controls included were HIV negative patients.

**RESULTS:** 101 HIV patients in the age group 19 - 70 yrs included 68 males and 33 females 16 Patients with CD4 counts<100, 22 in 100-200, 41 in 200-500 & 22 >500 were seen. Hpylori was seen in 38% of HIV patients VS 77.9%, of controls. H pylorii was seen in 18.8% of CD1 group, 27.3% of CD2 , 39% of CD3 & CD4 groups. Histology of HIV positive and controls, showed, body gastritis in 55.4% vs 59.4% , lymphoplasmocytic infiltration in 4% vs 9.4%, adenocarcinoma % vs 1%, intestinal metaplasia in 2% vs 1%, and normal histology in 37% vs 29.2% in patients with CD4+T cell counts >500 had abnormal HPE in 72% vs 31% in patients with CD4+T cell <100.

**CONCLUSIONS:** 1. There is decreased positivity of H.pylori in HIV positive patients when compared to HIV negative controls as reported world wide. 2. H pylori prevalence was lower when CD4+T cell counts were lower.

### KEYWORDS

H.Pylori prevalence , HIV positive patients

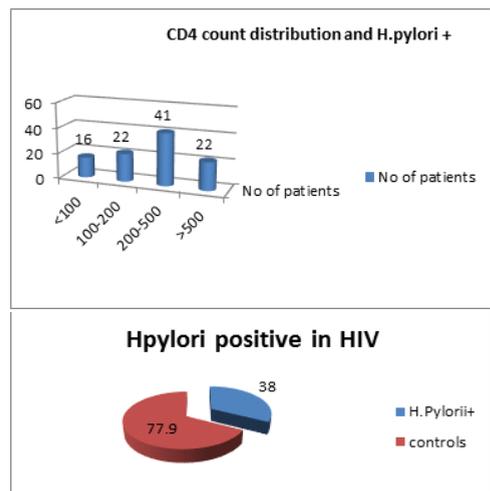
#### BACKGROUND:

The main cause of chronic type B gastritis has been proven to be H. pylori which is also an important cofactor for duodenal ulcer pathogenesis. H. pylori is seen in more than 90% of immune preserved subjects with chronic active gastritis and in 70 ±100% of those with peptic ulcer after Extensive studies . In contrast in adult patients with the acquired immunodeficiency syndrome (AIDS), H. pylori-related gastritis has been noted to occur less frequently (ie, in 5±59% of cases) . Such a finding is commonly explained by assuming that antimicrobial treatments and an impaired gastric acid secretion (both reported with high frequency in AIDS patients) could inhibit successful H. pylori colonization . An evident secretory impairment has, in effect, been proven to occur in the course of AIDS, although the data collected so far about the correlation between H. pylori infection and antibiotic treatment across the progressive phases of HIV infection appears to be scanty. The principal aims of this work were: to assess the histological and serological prevalence of H. pylori infection related to the phases of HIV infection and the eventual antimicrobial therapies performed prior to observation; H.pylori affects 50% of population world wide. Whether immune deficiency plays a part in its incidence has been debated in literature. Prevalence of H. pylori in HIV positive patients were studied and compared to healthy individuals and literature published.

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**MATERIALS & METHODS:** Study design: Cross sectional study Study period: January 2017 to January 2018. Study population: HIV patients attending Department of Medical Gastroenterology, Government Rajaji Hospital, Madurai from January 2017 to January 2018 were divided into 4 groups, depending upon their CD4+T cell counts. Detailed physical examination. blood biochemistry, & endoscopy was done: HPE & RUT for H pylori. Controls included were HIV negative patients.

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**DISCUSSION:** It has been suggested that CD4 T cells cells play an important role in Stimulating or repetitive tissue damage that may promote H. pylori colonization In our study, HIV-positive individuals were grouped as per T CD4 cell counts less than 100 and 100-200 , 200-500 and more than 500 and a tendency of lower prevalence of H. pylori infection was observed in the group of patients with T CD4 cell count of 100 and lower Hypochlorhydria has been reported in HIV-positive patients . Earlier studies have described that HIV-positive patients with full blown AIDS have significantly increased serum levels of gastrin and pepsinogen II compared with HIV-positive patients without overt AIDS . Hypochlorhydria may offer a less suitable environment for H. pylori and predispose to overgrowth of other bacteria. Other opportunistic pathogens such as Cytomegalovirus can

inhibit *H. pylori* by competition with via unclear mechanisms has been also proposed Previous use of PPI may modify environment In our study; only five HIV-positive patients were under PPI therapy. Low prevalence of *H. pylori* infection in the HIV positive individuals can be explained by the frequent usage of antibiotics for treatment or prophylaxis against opportunistic infection that occur in the couser of the illness he However, the antibiotics most commonly used in AIDS patients are not always efficacious against *H. pylori*. In addition with the use of single drug treatment even with clarithromycin that has a excellent anti-*H. pylori* activity.low *H. pylori* eradication ratio has been seen.

**CONCLUSIONS:** 1. There is decreased positivity of H.pylori in HIV positive patients when compared to HIV negative controls as reported world wide. 2. H pylori prevalence was lower when CD4+T cell counts were lower.

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