Introduction

Helicobacter pylori is the most prevalent infectious etiology in humans. Nearly half of the population in the developed countries and a large proportion of the population in the under developed and developing countries are infected by this bacterium ***(Taylor and Blaser, 1991)***.

Helicobacter pylori is a noninvasive organism located in the mucosa of the stomach and found in the stomach of patients with chronic active gastritis and peptic ulcers ***(Weinstein, 1993)***.

Although this noninvasive bacterium is thought to cause local disorders some data showed that H. pylori was associated with extragastric disorders such as coronary heart disease, , glaucoma, chronic rhinosinusitis, and squamous cell carcinoma of the head and neck ***(Tsand & Lam, 1999)***.

Different methods can be used to detect H. pylori infection. The presence of specific IgG antibodies against H. pylori can be detected by the relatively inexpensive and generally available ELISA technique ***(Basso et al., 1999)***. However, the diagnostic significance of the ELISA test is limited because it cannot discriminate between current and old infections ***(Fennerty, 1994)***.

Helicobacter pylori antibodies may persist over decades of the life of the patient. Serologic tests may revert from positive to negative after eradication of infection. Thus, serologic tests may be preferable for screening purposes or for following-up the efficacy of H. pylori treatment ***(Leontiadis et al., 1999)***.

The mechanism by which H. pylori reaches the nasal cavity can be explained by three possibilities. **First**, the nasal cavity may be a reservoir of H. pylori. **Second**, the oral cavity may represent the reservoir of H. pylori, and the microorganisms may come to the sinonasal cavity by way of the oronasal reflux. **Third**, the stomach may be the primary reservoir of this infection, and transmission of H. pylori from the stomach to the nasal cavity might occur by was of GERD ***(Ozdek et al., 2003)***.

It has been well established that there is a close relation between GER and chronic rhinosinusitis (CRS) ***(Ulualp et al., 1999)***.

The H. pylori organism can promote inflammation, increase production of interleukin-1 β, alter the sinonasal mucosa, and also contribute to the reactive hyperplasia of the epithelium, which can lead to the formation of polyps. ***(Unal et al., 2003)***.

Appropriate antibiotics for treatment of H. pylori are clarithromycin, amoxicillin, and metronidazole, which reveal better results with dual antibiotic therapy ***(Magraud and Marshall, 2000)***.

We give the patients antireflux and antibiotic therapy to eradicate H. pylori in patient with persistant chronic sinusitis.

Detection of H. pylori by immunohistochemistry can provide reliable results ***(Loffled et al., 1991)***. So our study will be based on immunohistochemical analysis of mucosal biopsy specimens for the detection of the H. pylori organism.