The prevalence of helicobacter pylori in tonsillar tissue of patients undergoing tonsillectomy at Kenyatta National Hospital

Abstract:

Human Palatine Tonsils are lympho epithelial tissues which are part of the Mucosa Associated Lymphoid Tissue which playa vital role in sampling and effector functions for the upper respiratory tract. Palatine tonsils may also serve as a reservoir for pathogens including H. pylori. It has been suggested that this may be responsible for the chronicity and recurrent nature of tonsillitis in some patients and may serve as an extra gastric reservoir for H. p~ori. ㅗ Objective: To determine if H. pylori colonises tonsillar tissue and to analyse the difference in patterns of H. pylori colonization in patients with Chronic Recurrent Tonsilitis compared to those with adeno tonsillar hypertrophy. Study Design: prospective Cross Sectional Comparative Study Material and Methods: A total of 78 cases were recruited from patients booked for tonsillectomy or adenotonsillectomy at the ENT satellite theatre. History was elicited from each patient recruited using preformatted questionairres. After tonsillectomy, one sample was taken from either tonsil and analyzed using Rapid Urease Test Kit and Histology for detection of H. pylori in the tonsil tissue. Study setting: Kenyatta National Hospital- A tertiary teaching hospital Data Analysis: Data was entered into preformatted worksheets and analysed using SPSS 17.0. Categorical variables were presented as percentages while continuous variables as means and standard deviation. Data was presented in the form of tables and graphs. Baseline characteristics was compared and Students T-Test and Pearsons' Chi Square test was used to test associations. Logistic regression was used to analyse statistically significant data. Results: A total of 78 tonsils were analysed for H. pylori by Rapid Urease Test and by Histology. H. pylori was present in 30.5% (n=24) of tonsillar tissues. Colonisation of palatine tonsils by H. pylori was found in 38.5% (n=15) of patients with Chronic Recurrent Tonsillitis with OSAS and 23% (n=9) of patients with Adenotonsillar Hypertrophy with OSAS. There was a statistically significant difference in risk of colonization by H. pylori when adjusted- for age [OR 2.5 (1.6-3.9) P= <0.001]. Colonisation of tonsil tissues by H. pylori using histology was found in 10.3% (n=4) of tonsil tissues. All were found in chronically recurrent tonsil tissues. A total of 12.8% (n=5) of cases had colonization by coccoid forms of H. pylori. There was no statistically significant risk in colonization by coccoid forms of H.pylori between tissues with Chronic Recurrent Tonsillitis with OSAS and those with Adenotonsillar Hypertrophy with OSAS. Conclusion: H. pylori colonization of the palatine tonsils is a new frontier with early results showing colonization of tonsils by H. pylori. This may lead to change in management protocols for chronically recurrent tonsils and also lead to new methods of treating H. pylori related gastric disease.