SUMMARY AND CONCLUSION

This study aimed to detect and isolate Helicobacter pylori from patients suffering of gastroduodenal disorders and to determine its chemotactic activity against human neutrophils.

The laboratory methods used were:

1- Rapid urease test.

2- Direct immunofluorescence antibody technique.

3- Culture using Skirrow's Helicobacter medium as a selective medium.

In this study 25 patients suffered from dyspeptic symptoms were undergo endoscopicy which revealed gastroduodenal disorders (group I) and 10 patients suffered from the same symptoms but without any endoscopic pathologic findings were selected as a control group (group II).

Groups I and II were divided according to age, sex, residence, socioeconomic status, past history of previous treatment and family history of the same complaint.

1. Rapid urease test showed the least specificity (25%) because it depends on the number of the organism in the sample and it alone can't be considered as a sure positive test.

2. DFA showed high sensitivity (82.3%) as a rapid test but it was less sensitive than culture sensitivity.

3. Culture method for detection of *H. pylori* showed high positivity (68%) in patients (group I) and was negative in all control (group II) but it needs from 5 to 7 days.

4. Older patients were more positive for *H. pylori* infection (56%).

5. Patients from rural areas (68%) showed higher incidence of *H. pylori* infection than urban patients (32%).

6. *H. pylori* infection is higher in male (76%) than female patients (24%).

7. Low socioeconomic state patients (64%) had higher prevalence of *H. pylori* infection than high socioeconomic state patients (36%).

8. Recurrence of *H. pylori* infection detected in patients with history of previous treatment (64%).

9. Positive family history of *H. pylori* infection was present in (12%) patients.

10. *H. pylori* secretes a chemostactic factor for human neutrophils and there is no significant difference in the production of chemotactic activity between ulcer derived and non ulcer derived strains suggesting that this factor is unlikely to have a direct ulcerogenic effect, although secondary effects related to the release of inflammatory mediators may be involved. A more likely role for this chemotactic activity is in the production of the *H. pylori* related gastritis with the recruitment of the inflammatory cells into the stomach wall. In this study we found that *H. pylori* supernates are chemotactic and showed up to 129.87%

activity when compared to the positive chemoattractant control (Zymosan).

Conclusion and Recommendations

1. For diagnosis of *H. pylori* infection it is better to use more than one method to get the right results about the disease, and then establish the ideal treatment regimen for eradication of this organism.

2. *H. pylori* infection is mostly a disease of poor hygiene and low socioeconomic state. *H. pylori* control requires several efforts to improve the socioeconomic standard, education and level of sanitation.

3. Although culture is the best direct method for identification of *H. pylori*, direct immunofluorescence test can be used as an alternative test to culture for rapid detection of *H. pylori* infection.

4. It is of vital importance that the patients are counselled of the need to comply with and finish the prescribed course of therapy.