SUMMARY AND CONCLUSION

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H. pylori is a gram negative micoaerophilic bacterium that appeared to play a role in peptic ulcer disease and it was considered as a risk factor for the development of gastric carcinoma. One of its virulence factors which is known to differ among H. pylori strains is the expression of 87-94 KDa vaculating cytotoxin.

This study aimed to characteriz some H. pylori virulence factors and it included 25 patients suffering from dyspeptic symptoms, their endoscopic examination showed signs of gastroduodenal disease (group I) and 10 patients suffered from the same symptoms but without any endoscopic pathologic finding were selected as control group (group II).

To all of them the followings were done:

1- Full medical history taking.
2- Isolation of H. pylori from different clinical cases.
3- Identification of H. pylori.
4- Separation of H. pylori products that may contain its toxin.
5- Study of the cytopathic effect of H. pylori and its products that may contain toxin on different cell lines.
6- Characterization of H. pylori products by electrophoresis.

This study showed that:

1- H. pylori infection was higher in elderly patients (70%).
2- H. pylori infection was significantly higher in males (75%) than in females (20%).
3- H. pylori infection was significantly higher in patients with low socioeconomic status (78.9%) than in high socioeconomic status patients (16.7%).

4- H. pylori infection was more common in smokers (75%) than non-smokers (58.8%).

5- Recurrence of H. pylori infection could be detected in (87.2%) of patients with past history of previous treatment.

6- Positive family history was present in 80% of patients with H. pylori infection.

7- H. pylori infection was a common finding in patients with upper gastrointestinal symptoms.

8- H. pylori infection plays a role in peptic ulcer disease and is a risk factor for the development of gastric carcinoma.

9- 64% of examined gastric biopsies were positive for H. pylori by culture.

10- Direct urease test is only suitable as preliminary test as 70% of positive urease producing strains were H. pylori positive by culture.

I I- 75%, 56.25%, 50% and 50% of H. pylori strains were cytotoxic to vero, HEP-2, BHK-21 and LLC-MK2 cells respectively.

12- Cytotoxic H. pylori strains are associated with sever gastric pathology as:

- 100% of H. pylori strains isolated from patients with G. cancer and duodenitis were cytotoxic.
- 70% - 100% of H. pylori strains isolated from patients with D. ulcer were cytotoxic.
- 50% of H. pylori strains isolated from patients with G. ulcer were cytotoxic.
- And, 20% -40% of H. pylori strains isolated from patients with gastritis were cytotoxic.

13- Most H. pylori strains produce vaculating, cytotoxin with molecular weight about 87-94 KDa.

CONCLUSION

- H. pylori infection is more common in elderly male patients with positive history of smoking and low socioeconomic status.
- Recurrence of H. pylori infection is very common due to improper treatment.
- H. pylori produces vaculating cytotoxin which might be responsible for the associated gastric pathology.
- Cytotoxic activity of H. pylori strains could be detected by using tissue culture technique.
- Evaluation of H. pylori cytotoxicity could be done by using either Vero cells alone or by the use of BHK-21 and LLC-MK2 cell lines together.