

SUMMARY

&

CONCLUSION

SUMMARY AND CONCLUSION

The aim of this study is to determine the prevalence of *Helicobacter pylori* in gastrointestinal diseases in Egyptian patients as well as antibiotic sensitivity tests for the cultured strains. The study was conducted on 48 Egyptian patients divided into 4 groups: first group (17 patients with duodenal ulcer), second group (10 patients with gastric ulcer), third group (12 patients with non-ulcer dyspepsia) and the fourth group of 9 asymptomatic subjects as control.

A full history of gastrointestinal symptoms, drug intake and complete clinical examination was done. To investigate patients for the presence of *Helicobacter pylori*, two punch biopsies from the antral mucosa were taken by upper gastrointestinal endoscopy. One biopsy was subjected to direct smear (gram and silver stains), and direct urease test. The other biopsy was crushed by glass grinder and cultured on Skirrow media, blood agar and chocolate agar media. Identification methods for positive culture colonies included gram stain film, catalase test, urease test, oxidase test, hanging drop method and hippurate hydrolysis test. Antibiotic sensitivity test was done for successfully isolated *Helicobacter pylori* strains.

The present study relied upon direct smear in the diagnosis of *Helicobacter pylori* infection of gastric mucosa by its classical known morphology. Totally, out of 48 cases, 33 cases had positive direct film and positive direct urease test (68.8%). These results pointed out to the significant role of *Helicobacter pylori* in pathogenesis of upper gastrointestinal troubles.

It was found that 94.1% of the duodenal ulcer group, 60% of the gastric ulcer patients were positive. There was statistically significant difference ($P < 0.05$) between the presence of *Helicobacter pylori* in the duodenal ulcer and gastric ulcer groups. On the other hand, 75% of the non-ulcer dyspepsia group and 22.2% of the control group were positive.

In addition, the following results were obtained:

- * There was no difference in the results obtained by the direct smear and direct urease test.
- * There was a statistically significant difference between results of the direct film and the culture results.
- * Culture was a specific test but not sensitive compared with the direct smear.
- * There was no significant difference between the different results of the culture in the different groups.
- * The present results indicated that *Helicobacter pylori* infection was more prevalent in the low standard class in Egypt, as 89% of patients came from villages were positive

while the positive results in patients living in towns were 42.2%.

- * *Helicobacter pylori* incidence increased by age and had a relative higher prevalence in the young adults 60.5% compared to developed countries.
- * Males were more susceptible to infection with *Helicobacter pylori* (78.5%) than females (55%).
- * All strains were susceptible to Ampicillin, Amikacin, Ceftizoxime, Cephalothin, Chloramphenicol, Clindamycin, Erythromycin, Genatmycin, Kanamycin, Nitrofurantoin, Norfloxacin, Penicillin, Sulfafurazol and Tetracycline.
- * All strains were resistant to Nalidixic acid, trimethoprim and vancomycin, while 14 strains were resistant to Colistin.